

PLEASE DO NOT DESTROY OR THROW AWAY THIS PUBLICATION. If you have no further use for it, write to the Geological Survey at Washington and ask for a frank to return it

UNITED STATES DEPARTMENT OF THE INTERIOR

**SURFACE WATER SUPPLY**  
*of the* **UNITED STATES**  
**1930**

---

**PART X**  
**THE GREAT BASIN**

---

Prepared in cooperation with the States of  
**UTAH, NEVADA, CALIFORNIA, OREGON, and WYOMING**

---

**GEOLOGICAL SURVEY WATER-SUPPLY PAPER 705**

---

UNITED STATES DEPARTMENT OF THE INTERIOR  
RAY LYMAN WILBUR, Secretary  
GEOLOGICAL SURVEY

---

Water-Supply Paper 705

---

SURFACE WATER SUPPLY  
*of the* UNITED STATES  
1930

PART X  
THE GREAT BASIN

---

NATHAN C. GROVER, Chief Hydraulic Engineer-  
A. B. PURTON, H. D. McGLASHAN, G. H. CANFIELD  
and ROBERT FOLLANSBEE  
District Engineers

Prepared in cooperation with the States of  
UTAH, NEVADA, CALIFORNIA, OREGON, and WYOMING



Water Resources Branch,  
Geological Survey,  
Box 3106, Capitol Station  
Oklahoma City, Okla.

UNITED STATES  
GOVERNMENT PRINTING OFFICE  
WASHINGTON : 1931

# CONTENTS

	Page
Authorization and scope of work.....	1
Definition of terms.....	2
Explanation of data.....	2
Accuracy of field data and computed results.....	4
Publications.....	5
Cooperation.....	10
Division of work.....	10
Gaging-station records.....	11
Great Salt Lake Basin.....	11
Gages on Great Salt Lake.....	11
Bear River Basin.....	12
Bear River near Evanston, Wyo.....	12
Bear River at Harer, Idaho.....	13
Bear River at Alexander, Idaho.....	14
Bear River near Weston, Idaho.....	15
Bear River near Collinston, Utah.....	16
East Fork of Little Bear River near Avon, Utah.....	17
Logan River above State dam, near Logan, Utah.....	18
Utah Power & Light Co.'s tailrace near Logan, Utah.....	19
Logan, Hyde Park & Smithfield Canal near Logan, Utah..	20
Blacksmith Fork at municipal power plant near Hyrum, Utah.....	21
Blacksmith Fork above Utah Power & Light Co.'s dam near Hyrum, Utah.....	22
West Side Canal near Collinston, Utah.....	23
Hammond (East Side) Canal near Collinston, Utah.....	24
Weber River Basin.....	25
Weber River near Oakley, Utah.....	25
Weber River near Coalville, Utah.....	26
Weber River at Echo, Utah.....	27
Weber River at Devils Slide, Utah.....	28
Weber River at Gateway, Utah.....	29
Weber River near Plain City, Utah.....	30
Chalk Creek at Coalville, Utah.....	31
Lost Creek at Devils Slide, Utah.....	32
South Fork of Ogden River near Huntsville, Utah.....	33
Jordan River Basin.....	34
Jordan River near Lehi, Utah.....	34
Salt Creek near Nephi, Utah.....	35
Provo River at Forks, Utah.....	36
South Fork of Provo River at Forks, Utah.....	37
Sevier Lake Basin.....	38
Sevier River near Kingston, Utah.....	38
Piute Reservoir near Marysville, Utah.....	39

## Gaging-station records—Continued.

## Sevier Lake Basin—Continued.

	Page
Sevier River below Piute Dam, near Marysville, Utah.....	40
Sevier River near Vermilion, Utah.....	41
Sevier River below San Pitch River, near Gunnison, Utah.....	42
Sevier Bridge Reservoir near Juab, Utah.....	43
Sevier River near Juab, Utah.....	44
East Fork of Sevier River near Kingston, Utah.....	45
Rockyford Canal near Vermilion, Utah.....	46
Beaver River Basin.....	47
Beaver River near Beaver, Utah.....	47
Beaver River at Adamsville, Utah.....	48
Beaver River at Rockyford Dam near Minersville, Utah.....	49
Salton Sink Basin.....	50
Southern Pacific Co.'s ditch near Whitewater, Calif.....	50
Falls Creek near Whitewater, Calif.....	51
Palm Canyon Creek near Palm Springs, Calif.....	52
Owens Lake Basin.....	53
Owens River near Round Valley, Calif.....	53
Owens River at Pleasant Valley, near Bishop, Calif.....	54
Owens River near Big Pine, Calif.....	55
Rock Creek at Sherwin Hill, near Bishop, Calif.....	56
Rock Creek near Round Valley, Calif.....	57
Pine Creek at division box, near Bishop, Calif.....	58
Pine Creek near Round Valley, Calif.....	59
Antelope Valley Basin.....	60
Rock Creek near Valyermo, Calif.....	60
Mohave River Basin.....	61
Deep Creek near Hesperia, Calif.....	61
Mohave River at Afton, Calif.....	62
West Fork of Mohave River near Hesperia, Calif.....	63
Mono Lake Basin.....	63
Mono Lake near Mono Lake, Calif.....	63
Walker Lake Basin.....	64
East Walker River near Bridgeport, Calif.....	64
Walker River near Wabuska, Nev.....	65
Walker River at Schurz, Nev.....	66
Walker Lake near Hawthorne, Nev.....	67
West Walker River near Coleville, Calif.....	68
West Walker River at Hoye Bridge, near Wellington, Nev.....	69
Humboldt-Carson Sink Basin.....	70
Carson River Basin.....	70
East Fork of Carson River near Markleeville, Calif.....	70
Carson River near Fort Churchill, Nev.....	71
Markleeville Creek above Markleeville, Calif.....	72
Markleeville Creek at Markleeville, Calif.....	73
Humboldt River Basin.....	74
Humboldt River at Palisade, Nev.....	74
Humboldt River near Oreana, Nev.....	75
South Fork of Humboldt River near Elko, Nev.....	76
Martin Creek near Paradise Valley, Nev.....	77
Cottonwood Creek near Paradise Valley, Nev.....	78

Gaging-station records—Continued.	
Humboldt-Carson Sink Basin—Continued.	
Humboldt River Basin—Continued.	Page
Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal near Mill City, Nev.....	79
Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal near Humboldt, Nev.....	79
Pyramid and Winnemucca Lakes Basin.....	80
Lake Tahoe at Tahoe, Calif.....	80
Truckee River at Tahoe, Calif.....	81
Truckee River at Iceland, Calif.....	82
Abert Lake Basin.....	83
Chewaucan River above Conn Ditch, near Paisley, Oreg.....	83
Silver Lake Basin.....	84
Silver Creek near Silver Lake, Oreg.....	84
Silver Lake Irrigation District Canal near Silver Lake, Oreg.....	85
Malheur and Harney Lakes Basin.....	86
Silvies River near Burns, Oreg.....	86
Alvord Lake Basin.....	87
Trout Creek near Denio, Oreg.....	87
Miscellaneous discharge measurements.....	88
Index.....	91

---

## ILLUSTRATION

---

<b>FIGURE 1.</b> Typical river measurement station showing concrete well and house for water-stage recorder and staff gages, cable, and car.....	Page
	3

# SURFACE WATER SUPPLY OF THE GREAT BASIN, 1930

---

## AUTHORIZATION AND SCOPE OF WORK

This volume is one of a series of 14 reports presenting records of measurements of flow made on streams in the United States during the year ending September 30, 1930.

The data presented in these reports were collected by the United States Geological Survey under the following authority contained in the organic law (20 Stat. L., p. 394):

*Provided*, That this officer [the director] shall have the direction of the Geological Survey and the classification of public lands and examination of the geological structure, mineral resources, and products of the national domain.

The work was begun 1888 in connection with special studies relating to irrigation. Since the fiscal year ending June 30, 1895, successive appropriation bills passed by Congress have carried the following items:

For gaging the streams and determining the water supply of the United States and for the investigation of underground currents and artesian wells, and for the preparation of reports upon the best methods of utilizing the water resources.

### *Annual appropriations for the fiscal year ending June 30, 1895-1931*

1895.....	\$12, 500. 00	1911-1917..	\$150, 000. 00	1926.....	\$165, 000. 00
1896.....	24, 500. 00	1918.....	175, 000. 00	1927.....	151, 000. 00
1897-1899...	50, 000. 00	1919.....	148, 244. 10	1928.....	147, 000. 00
1900.....	70, 000. 00	1920.....	175, 000. 00	1929.....	270, 500. 00
1901-2.....	100, 000. 00	1921.....	180, 000. 00	1930.....	275, 000. 00
1903-1906...	200, 000. 00	1922.....	180, 000. 00	1931.....	565, 000. 00
1907.....	150, 000. 00	1923.....	180, 000. 00		
1908-1910...	100, 000. 00	1924-25....	170, 000. 00		

In the execution of the work many private and State organizations have cooperated, either by furnishing data or by assisting in collecting data. Acknowledgments for cooperation of the first kind are made in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 10.

Measurements of stream flow have been made at about 6,070 points in the United States and also at many points in Alaska and the Hawaiian Islands. In July, 1930, 2,430 gaging stations were being maintained by the Geological Survey and the cooperating organizations. Many miscellaneous discharge measurements were made at

other points. In connection with this work data were also collected in regard to precipitation, evaporation, storage reservoirs, river profiles, and water power in many sections of the country and will be made available in water-supply papers from time to time.

### DEFINITION OF TERMS

The volume of water flowing in a stream—the “run-off” or “discharge”—is expressed in various terms, each of which has become associated with a certain class of work. These terms may be divided into two groups—(1) those that represent a rate of flow, as second-feet, gallons per minute, miner’s inches, and discharge in second-feet per square mile; and (2) those that represent the actual quantity of water, as run-off in inches, acre-feet, and millions of cubic feet. The principal terms used in this series of reports are second-feet, second-feet per square mile, run-off in inches, and acre-feet. They may be defined as follows:

“Second-feet” is an abbreviation for “cubic feet per second.” A second-foot is the rate of discharge of water flowing in a channel of rectangular cross section 1 foot wide and 1 foot deep at an average velocity of 1 foot per second. It is generally used as a fundamental unit from which others are computed.

“Second-feet per square mile” is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the run-off is distributed uniformly both as regards time and area.

“Run-off in inches” is the depth to which an area would be covered if all the water flowing from it in a given period were uniformly distributed on the surface. It is used for comparing run-off with rainfall, which is usually expressed in inches.

An “acre foot,” equivalent to 43,560 cubic feet, is the quantity required to cover an acre to the depth of 1 foot. The term is commonly used in connection with storage for irrigation.

The following terms not in common use are here defined:

“Stage-discharge relation,” an abbreviation for the term “relation of gage height to discharge.”

“Control,” a term used to designate the natural section or stretch of the channel or artificial structure below the gage which determines the stage-discharge relation at the gage.

### EXPLANATION OF DATA

The data presented in this report cover the year beginning October 1, 1929, and ending September 30, 1930. At the beginning of January in most parts of the United States much of the precipitation in the preceeding three months is stored in the form of snow or ice, or in ponds, lakes, and swamps, or as underground water, and this

stored water passes off in the streams during the spring break-up. At the end of September, on the other hand, the only stored water available for run-off is possibly a small quantity in the ground; therefore the run-off for the year beginning October 1 is practically all derived from precipitation within that year.

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to

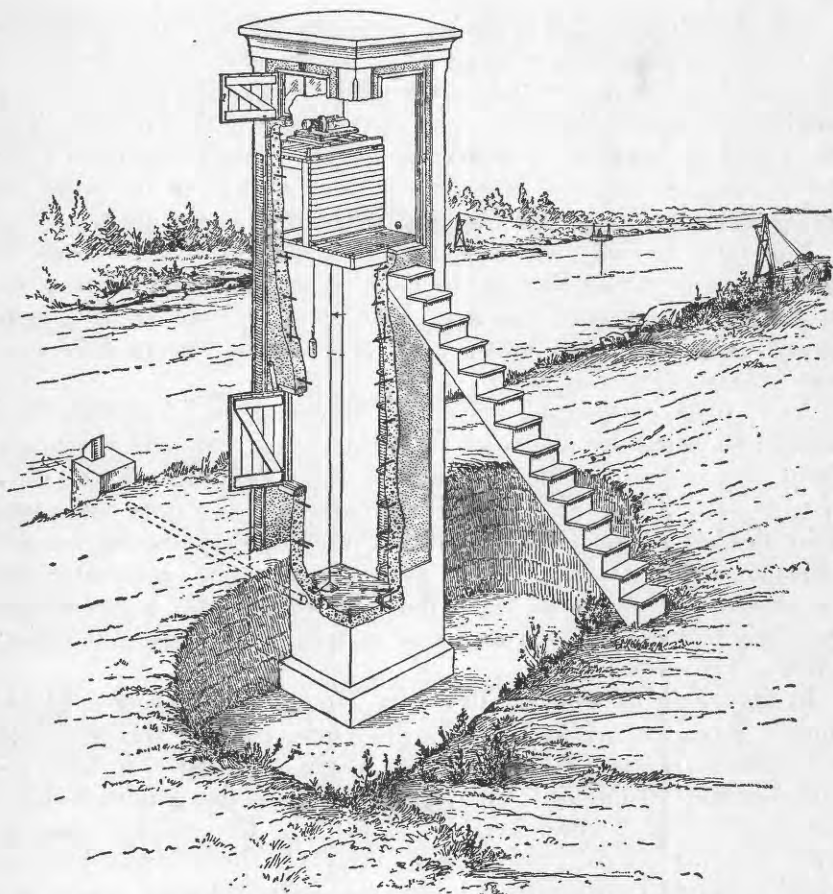


FIGURE 1.—Typical river measurement station showing concrete well and house for water-stage recorder and staff gages, cable, and car

supplement the gage heights and discharge measurements in determining the daily flow. The records of stage are obtained either from direct readings on a staff or chain gage or from a water-stage recorder that gives a continuous record of the fluctuations. Measurements of discharge are made with a current meter by the general methods outlined in standard textbooks on the measurement of river discharge. A typical gaging station, equipped with water-stage recorder and measuring cable and car, is shown in Figure 1.



From the discharge measurements rating tables are prepared that give the discharge for any stage. The application of the daily gage heights to these rating tables gives the daily discharge from which the monthly and yearly mean discharge is computed.

The data presented for each gaging station in the area covered by this report comprise a description of the station and a table showing the daily discharge of the stream and the monthly and yearly discharge and run-off.

The description of the station gives, in addition to statements regarding location and type of gage, information as to diversions that decrease the flow at the gage, artificial regulation, maximum and minimum recorded discharges, and the accuracy of the records. The maximum discharge given under "Extremes" does not represent the crest discharge unless a water-stage recorder was in operation or unless a nonrecording gage was read at the time of the crest.

The table of daily discharge gives, in general, the discharge in second-feet corresponding to the daily gage height, which may be a once-daily reading or the mean of twice-daily readings of a non-recording gage, or the mean daily gage height obtained from a water-stage recorder graph.

At stations on streams subject to sudden or rapid diurnal fluctuation the discharge obtained from the rating table and the mean daily gage height may not be the true mean discharge for the day. If such stations are equipped with water-stage recorders, the mean daily discharge may be obtained by averaging discharge at regular intervals during the day or by using the discharge integrator, an instrument for obtaining mean daily discharge from a continuous gage-height graph and containing as an essential element the rating curve of the station.

In the table of monthly discharge the column headed "Maximum" gives the maximum daily discharge, and not the discharge when the water surface was at crest height. Likewise, in the column headed "Minimum" the quantity given is the minimum daily discharge. The column headed "Mean" is the average flow in cubic feet per second during the month. On this average flow are based computations recorded in the remaining columns, which are defined on page 2.

#### ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of stream-flow data depends primarily (1) on the permanency of the stage-discharge relation and (2) on the accuracy of observation of stage, measurements of flow, and interpretation of records.

The station description gives a statement in regard to the general accuracy of the records. "Excellent" indicates that records are

accurate within 5 per cent; "good," within 10 per cent; "fair," within 15 per cent; and "poor," within 20 per cent or more.

The monthly means for any station may represent with high accuracy the quantity of water flowing past the gage, but the figures showing discharge per square mile and run-off in inches may be subject to gross errors caused by the inclusion of large noncontributing districts in the measured drainage area, by lack of information concerning water diverted for irrigation or other use, or by inability to interpret the effect of artificial regulation of the flow of the river above the station. "Second-feet per square mile" and "run-off in inches" are therefore not computed if such errors appear probable. The computations are also omitted for stations on streams draining areas in which the annual rainfall is less than 20 inches.

The table of monthly discharge gives a general idea of the flow at the station. The table of daily discharge allows more detailed studies of the variation in flow. It should be borne in mind, however, that the observations in each succeeding year may be expected to throw new light on data previously published.

Many gaging stations on streams in the irrigated areas of the United States are situated above most of the diversions from those streams, and the discharge recorded does not show the water supply available for further development, as prior appropriations below the stations must first be satisfied.

## PUBLICATIONS

Investigation of water resources by the United States Geological Survey has consisted in large part of measurements of the volume of flow of streams and studies of the conditions affecting that flow, but it has comprised also investigation of such closely allied subjects as irrigation, water storage, water powers, underground waters, and quality of waters. Most of the results of these investigations have been published in the series of water-supply papers, but some have appeared in the bulletins, professional papers, monographs, and annual reports.

The results of stream-flow measurements are now published annually in 12 parts, each part covering an area whose boundaries coincide with the natural drainage features as indicated below:

Part I. North Atlantic slope basins (St. John River to York River).

II. South Atlantic slope and eastern Gulf of Mexico basins (James River to the Mississippi).

III. Ohio River Basin.

IV. St. Lawrence River Basin.

V. Hudson Bay and upper Mississippi River Basins.

VI. Missouri River Basin.

VII. Lower Mississippi River Basin.

VIII. Western Gulf of Mexico basins.

**Part IX. Colorado River Basin.**

X. The Great Basin.

XI. Pacific slope basins in California.

XII. North Pacific slope basins in three parts:

A, Pacific slope basins in Washington and upper Columbia River Basin.

B, Snake River Basin.

C, Pacific slope basins in Oregon and lower Columbia River Basin.

Water-supply papers and other publications of the United States Geological Survey containing data in regard to the water resources of the United States may be obtained or consulted as indicated below.

1. Copies may be purchased at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C., who will, on application, furnish lists giving prices.

2. Sets of the reports may be consulted in the libraries of the principal cities in the United States.

3. Complete sets are available for consultation in the local offices of the water-resources branch of the Geological Survey as follows:

Augusta, Me., Statehouse.

Boston, Mass., 2500 Customhouse.

Hartford, Conn., 318 State Office Building.

Albany, N. Y., 506 Broadway-Arcade Building.

Trenton, N. J., 710 Trenton Trust Building.

Harrisburg, Pa., 366 State Capitol.

Charlottesville, Va., Brooks Museum, University of Virginia.

South Charleston, W. Va., Naval Ordnance Plant.

Asheville, N. C., 220 Post Office Building.

Columbia, S. C., 801 National Loan &amp; Exchange Bank Building.

Ocala, Fla., Post Office Building.

Tuscaloosa, Ala., Post Office Building.

Chattanooga, Tenn., 630 Power Building.

Columbus, Ohio, Engineering Experiment Station, Ohio State University.

Indianapolis, Ind., 319 Federal Building.

Chicago, Ill., 1503 Consumers Building.

Madison, Wis., 337N State Capitol.

St. Paul, Minn., 202 Old State Capitol.

Topeka, Kans., 23 Federal Building.

Rolla, Mo., Rolla Building, School of Mines and Metallurgy.

Fort Smith, Ark., Post Office Building.

Austin, Tex., State Capitol.

Santa Fe, N. Mex., State Capitol.

Tucson, Ariz., 210 Post Office Building.

Denver, Colo., 403 Post Office Building.

Salt Lake City, Utah, 313 Federal Building.

Idaho Falls, Idaho, 228 Federal Building.

Boise, Idaho, Federal Building.

Helena, Mont., 416 Power Block.

Tacoma, Wash., 406 Federal Building.

Portland, Oreg., 606 Post Office Building.

San Francisco, Calif., 303 Customhouse.

Los Angeles, Calif., 751 South Figueroa Street, Room 510.

Honolulu, Hawaii, Territorial Office Building.

A list of the Geological Survey's publications may be obtained by applying to the Director of the United States Geological Survey, Washington, D. C.

Stream-flow records have been obtained at about 6,070 points in the United States, and the data obtained have been published in the reports tabulated on page 8.

The records at most of the stations discussed in these reports extend over a series of years. Miscellaneous measurements at many points other than regular gaging stations have been made each year and are published under "Miscellaneous discharge measurements" at the end of each report in the same relative order as the regular gaging stations. An index of the reports containing records obtained prior to 1904 has been published in Water-Supply Paper 119.

*Stream-flow data in reports of the United States Geological Survey*

[A = Annual Report; B = Bulletin; W = Water-Supply Paper]

Report	Character of data	Year
10th A, pt. 2	Descriptive information only	
11th A, pt. 2	Monthly discharge and descriptive information	1884 to Sept., 1890.
12th A, pt. 2	do	1884 to June 30, 1891.
13th A, pt. 3	Mean discharge in second-feet	1884 to Dec. 31, 1892.
14th A, pt. 2	Monthly discharge (long-time records, 1871 to 1893)	1888 to Dec. 31, 1893.
B 131	Descriptions, measurements, gage heights, and ratings	1893 and 1894.
16th A, pt. 2	Descriptive information only	
B 140	Descriptions, measurements, gage heights, ratings, and monthly discharge (also many data covering earlier years).	1895.
W 11	Gage heights (also gage heights for earlier years)	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895 and 1896.
W 15	Descriptions, measurements, and gage heights, eastern United States, eastern Mississippi River, and Missouri River above junction with Kansas.	1897.
W 16	Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte, and western United States.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27	Measurements, ratings, and gage heights, eastern United States, eastern Mississippi River, and Missouri River.	1898.
W 28	Measurements, ratings, and gage heights, Arkansas River and western United States.	1898.
20th A, pt. 4	Monthly discharge (also for many earlier years)	1898.
W 35 to 39	Descriptions, measurements, gage heights, and ratings	1899.
21st A, pt. 4	Monthly discharge	1899.
W 47 to 52	Descriptions, measurements, gage heights, and ratings	1900.
22d A, pt. 4	Monthly discharge	1900.
W 65, 66	Descriptions, measurements, gage heights, and ratings	1901.
W 75	Monthly discharge	1901.
W 82 to 85	Complete data	1902.
W 97 to 100	do	1903.
W 124 to 135	do	1904.
W 165 to 178	do	1905.
W 201 to 214	do	1906.
W 241 to 252	do	1907 and 1908.
W 261 to 272	do	1909.
W 281 to 292	do	1910.
W 301 to 312	do	1911.
W 321 to 332	do	1912.
W 351 to 362	do	1913.
W 381 to 394	do	1914.
W 401 to 414	do	1915.
W 431 to 444	do	1916.
W 451 to 464	do	1917.
W 471 to 484	do	1918.
W 501 to 514	do	1919 and 1920.
W 521 to 534	do	1921.
W 541 to 554	do	1922.
W 561 to 574	do	1923.
W 581 to 594	do	1924.
W 601 to 614	do	1925.
W 621 to 634	do	1926.
W 641 to 654	do	1927.
W 661 to 674	do	1928.
W 681 to 694	do	1929.
W 696 to 709	do	1930.

The following table gives, by years and drainage basins, the numbers of the papers on surface-water supply published from 1899 to 1930. The data for any particular station will be found in the reports covering the years during which the station was maintained. For example, data from 1910 to 1920 for any station in the area covered by Part III are published in Water-Supply Papers 283, 303, 323, 353, 383, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for these years.

*Numbers of water-supply papers containing results of stream measurements, 1899-1930*  
[For basins included see p. 5]

Year	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII-A	XII-B	XII-C
1899 <sup>a</sup>	35	35, 36	36	36	36	36, 37	37	37	37, 38	38, 39	38, 39	38	38	38
1900 <sup>a</sup>	47, 48	48, 49	48, 49	49	49	49, 50	50	50	50	51	51	51	51	51
1901 <sup>a</sup>	65, 75	65, 75	65, 75	65, 75	65, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902 <sup>a</sup>	82, 83	82, 83	82, 83	82, 83	82, 83	83	83	83	83	85	85	85	85	85
1903 <sup>a</sup>	97	97, 98	98	98	98	99	99	99	100	100	100	100	100	100
1904 <sup>a</sup>	124, 126, 127, 128	126, 127, 128	128	129	129	130, 131	131	132	133	133, 134	134	135	135	135
1905 <sup>a</sup>	165, 166, 167, 168	167, 168	169	170	171	172	173	174	175, 177	176, 177	177	178	178	177, 178
1906 <sup>a</sup>	201, 202, 203	203, 204	205	206	207	208	209	210	211, 213	212, 213	213	214	214	214
1907-8 <sup>a</sup>	241	242	243	244	245	246	247	248	249	250, 251	251	252	252	252
1909 <sup>a</sup>	261	262	263	264	265	266	267	268	269	270, 271	271	272	272	272
1910 <sup>a</sup>	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911 <sup>a</sup>	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912 <sup>a</sup>	321	322	323	324	325	326	327	328	329	330	331	332-A	332-B	332-C
1913 <sup>a</sup>	351	352	353	354	355	356	357	358	359	360	361	362-A	362-B	362-C
1914 <sup>a</sup>	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915 <sup>a</sup>	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916 <sup>a</sup>	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917 <sup>a</sup>	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918 <sup>a</sup>	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919-20 <sup>a</sup>	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921 <sup>a</sup>	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922 <sup>a</sup>	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923 <sup>a</sup>	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924 <sup>a</sup>	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925 <sup>a</sup>	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926 <sup>a</sup>	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1927 <sup>a</sup>	641	642	643	644	645	646	647	648	649	650	651	652	653	654
1928 <sup>a</sup>	661	662	663	664	665	666	667	668	669	670	671	672	673	674
1929 <sup>a</sup>	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1930 <sup>a</sup>	696	697	698	699	700	701	702	703	704	705	706	707	708	709

- <sup>a</sup> Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 39. Tables of monthly discharge for 1899 in Twenty-first Annual Report, Part IV.
- <sup>b</sup> James River only.
- <sup>c</sup> Gallatin River.
- <sup>d</sup> Green and Gunnison Rivers and Grand River above junction with Gunnison.
- <sup>e</sup> Mohave River only.
- <sup>f</sup> Kings and Kerns Rivers.
- <sup>g</sup> Rating tables and index to Water-Supply Papers 47-52 and data on precipitation, wells, and irrigation in California and Utah contained in Water-Supply Paper 52. Tables of monthly discharge for 1900 in Twenty-second Annual Report, Part IV.
- <sup>h</sup> A Wissahickon and Schuylkill Rivers to James River.
- <sup>i</sup> Soloto River.
- <sup>j</sup> Loup and Platte Rivers near Columbus, Nebr., and all tributaries below junction with Platte.
- <sup>k</sup> Tributaries of Mississippi from east.
- <sup>l</sup> Lake Ontario and tributaries to St. Lawrence River proper.
- <sup>m</sup> Hudson Bay only.
- <sup>n</sup> New England rivers only.
- <sup>o</sup> Hudson River to Delaware River, inclusive.
- <sup>p</sup> Susquehanna River to Yackim River, inclusive.
- <sup>q</sup> Plateau and Kansas Rivers.
- <sup>r</sup> Great Basin in California except Truckee and Carson River Basins.
- <sup>s</sup> Below junction with Gila.
- <sup>t</sup> Rogue, Umpqua, and Siletz Rivers only.

## COOPERATION

The work was done under cooperative agreements with the several States as follows: In Utah with the office of the State engineer, George M. Bacon; in Nevada with the office of the State engineer, George W. Malone; in California with the department of public works, B. B. Meek, director, and Edward Hyatt, State engineer; in Oregon with the office of the State engineer, Rhea Luper; in Wyoming with the office of the State engineer, John A. Whiting.

Assistance in collecting records was rendered by the United States Bureau of Reclamation, Utah Power & Light Co., and city of Hyrum, Utah.

## DIVISION OF WORK

Data for stations in Utah, Idaho, and Nevada were collected and prepared for publication under the direction of A. B. Furton, district engineer, assisted by M. T. Wilson, J. A. Allis, J. B. Ringwood, F. N. Hansen, B. M. Tanner, and Miss Lysle Christensen.

Data for stations in California were collected and prepared for publication under the direction of H. D. McGlashan, district engineer, assisted by F. C. Ebert, R. C. Briggs, Charles Leidl, Jesse Arnold, Jarrett Oliver, H. C. Troxell, A. C. Swanson, F. A. Johnson, L. E. Bossen, K. R. Melin, and J. E. Jones.

Data for stations in Oregon were collected and computed in the office of the Oregon State engineer and were reviewed, checked, and prepared for publication by G. H. Canfield, district engineer, assisted by K. N. Phillips and A. H. Williams.

Data for the station in Wyoming were collected and prepared for publication under the direction of Robert Follansbee, district engineer, assisted by P. V. Hodges, R. E. Cabell, D. S. Jenkins, and L. F. Hanks.

The records were reviewed and the manuscript assembled by F. F. LeFever.

## GAGING-STATION RECORDS

## GREAT SALT LAKE BASIN

## GAGES ON GREAT SALT LAKE

**LOCATION.**—Staff gages at Saltair, on southeast shore of lake, 15 miles west of Salt Lake City, and at Midlake, on Lucin cut-off of Southern Pacific Railroad, 30 miles west of Ogden, Weber County, Utah. Zero of Saltair gage is 4,196.8 feet above mean sea level; zero of Midlake gage is 4,198.0 feet above mean sea level.

**RECORDS AVAILABLE.**—September, 1875, to December, 1899; March to July, 1904; October, 1912, to September, 1930.

**EXTREMES.**—Maximum elevation during year, 4,201.15 feet May 15 at Midlake gage; minimum, 4,199.8 feet Sept. 15 at Saltair gage.

1850–1930: Maximum elevation, 4,211.3 feet July 12, 1877; estimated maximum, 4,212.5 feet in 1868 (data furnished by Marcus E. Jones, Salt Lake City). Minimum, 4,195.7 feet in 1902, 1905.

**REMARKS.**—Apparent inconsistencies in readings are probably due largely to effect of wind, as the two gages are about 40 miles apart. Readings on Midlake gage furnished by Southern Pacific Co.

*Gage height, in feet, 1929–30*

Day	Saltair	Midlake	Day	Saltair	Midlake
Oct. 1.....	3.75	2.6	Apr. 1.....	4.18	3.1
Oct. 15.....	3.6	2.6	Apr. 15.....	4.20	3.1
Nov. 1.....	3.35	2.4	May 1.....	4.23	3.1
Nov. 15.....	3.6	2.35	May 15.....	4.30	3.15
Dec. 1.....	3.55	2.35	June 1.....	4.30	3.1
Dec. 15.....	3.53	2.4	June 15.....	4.15	2.85
Jan. 1.....	3.66	2.5	July 1.....	3.93	2.75
Jan. 15.....	3.73	2.6	July 15.....	3.75	2.6
Feb. 1.....	3.78	2.6	Aug. 1.....	* 3.4	2.25
Feb. 15.....	3.89	2.65	Aug. 15.....	* 3.4	2.25
Mar. 1.....	4.02	2.85	Sept. 1.....	* 3.15	2.00
Mar. 15.....	4.10	3.0	Sept. 15.....	3.0	1.85

\* Estimated.

69377—31—2



## BEAR RIVER BASIN

## BEAR RIVER NEAR EVANSTON, WYO.

LOCATION.—Water-stage recorder in sec. 1, T. 15 N., R. 121 W., 300 feet above highway bridge and  $3\frac{1}{2}$  miles northwest of Evanston.

DRAINAGE AREA.—645 square miles.

RECORDS AVAILABLE.—October, 1913, to September, 1930.

EXTREMES.—Maximum discharge during year, 1,420 second-feet June 12 (gage height, 4.66 feet); minimum, 3 second-feet July 31 to Aug. 3.

1913-1930: Maximum discharge, 3,690 second-feet June 14, 1921 (gage height, 6.35 feet); no flow Aug. 9-24, Aug. 27 to Sept. 30, 1924.

REMARKS.—Records good except those estimated, which are fair. Observations discontinued during winter. Diversions for irrigation above station.

*Daily and monthly discharge, in second-feet, 1929-1930*

Day	Oct.	Nov.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94	75	-----	150	335	855	103	3	83
2	89	80	-----	160	442	638	78	3	78
3	94	91	-----	180	549	544	46	3	76
4	103	84	-----	270	656	502	29	4	74
5	92	81	-----	400	602	482	23	13	88
6	87	94	-----	575	502	562	18	28	97
7	87	84	-----	765	462	795	18	48	80
8	87	71	-----	820	430	1,010	16	55	89
9	103	63	-----	750	382	1,130	15	114	70
10	118	81	-----	598	352	1,070	12	141	54
11	101	80	-----	526	356	1,090	12	235	49
12	92		-----	378	346	1,200	40	346	46
13	84		-----	346	328	1,130	50	293	44
14	82		-----	324	325	900	36	588	43
15	81		-----	314	330	765	26	398	39
16	78	101	279	382	450	715	19	286	37
17	78	* 105	247	324	458	695	15	238	32
18	82	* 105	248	272	438	634	12	229	24
19	84	91	250	259	434	620	11	198	19
20	81	91	252	279	420	611	11	168	18
21	80	* 72	254	321	435	539	12	127	18
22	78	* 53	256	422	600	462	12	112	19
23	75	66	279	502	550	474	10	108	43
24	68	40	232	647	500	352	9	118	70
25	67	67	202	885	588	296	9	106	67
26	74	71	182	735	705	244	7	110	64
27	78	76	170	616	855	202	6	131	59
28	87	70	160	422	959	172	5	118	60
29	84		150	386	1,090	148	5	103	58
30	74		136	342	1,170	133	4	99	55
31	80		137	-----	1,070	-----	3	86	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	118	67	85.2	5,240
November	105	36	77.4	4,610
March 16-31	279	136	215	6,820
April	885	150	445	26,500
May	1,170	325	552	33,900
June	1,200	133	632	37,600
July	103	3	21.7	1,330
August	588	3	148	9,100
September	97	18	55.1	3,280

\* Estimated.

## BEAR RIVER AT HARER, IDAHO

LOCATION.—Water-stage recorder in NE.  $\frac{1}{4}$  sec. 22, T. 14 S., R. 45 E., half a mile below mouth of Sheep Creek, three-fourths mile north of Harer siding on Oregon Short Line Railroad, and 6 miles east of Dingle.

DRAINAGE AREA.—2,780 square miles.

RECORDS AVAILABLE.—June, 1913, to September, 1916; January, 1919, to September, 1930.

EXTREMES.—Maximum mean daily discharge during year, 1,200 second-feet Apr. 12; minimum, 140 second-feet Jan. 21-28.

1913-1916, 1919-1930: Maximum discharge, 3,860 second-feet June 2, 1920 (gage height, 10.51 feet); minimum, 81 second-feet Sept. 1, 1919 (gage height, 2.61 feet).

REMARKS.—Records good. Numerous diversions for irrigation above station. Records collected by Utah Power & Light Co. under general supervision of Geological Survey in connection with a Federal Power Commission project.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1-----	402	338	300	220	175	330	695	858	739	468	221	400
2-----	394	335	290	230	180	325	695	796	849	432	212	380
3-----	391	338	280	205	185	340	704	770	934	436	215	361
4-----	388	338	270	200	175	305	734	761	970	400	215	346
5-----	380	325	270	200	175	275	778	752	962	376	215	342
6-----	377	329	270	195	185	270	836	765	849	369	224	338
7-----	366	332	270	195	195	275	898	752	778	357	224	331
8-----	374	335	280	170	205	285	988	687	730	346	221	328
9-----	388	338	290	145	205	295	1,090	739	708	338	221	317
10-----	394	335	300	150	215	320	1,150	774	704	331	221	310
11-----	391	346	300	155	220	340	1,180	792	726	380	236	306
12-----	394	310	300	150	210	350	1,200	818	770	412	284	295
13-----	380	300	300	150	200	370	1,170	822	890	384	302	284
14-----	370	300	300	150	210	355	1,110	765	849	361	388	273
15-----	370	300	300	145	220	320	1,080	743	836	342	420	269
16-----	370	300	300	145	210	320	998	756	818	346	480	269
17-----	366	300	300	145	205	495	876	748	818	324	528	269
18-----	363	310	290	145	215	600	774	730	814	299	561	262
19-----	360	320	280	145	220	655	778	739	787	291	553	252
20-----	352	320	280	145	215	645	765	717	726	284	520	246
21-----	352	310	280	140	215	655	739	708	679	273	488	239
22-----	349	300	280	140	215	755	734	708	645	266	464	239
23-----	346	300	280	140	215	795	687	704	641	259	448	249
24-----	346	310	270	140	260	845	687	666	632	249	440	256
25-----	342	310	270	140	275	865	708	637	611	249	428	262
26-----	338	310	260	140	245	926	712	620	565	252	408	269
27-----	342	310	260	140	270	894	730	586	536	252	400	269
28-----	352	300	250	140	290	748	792	599	516	243	404	269
29-----	352	300	250	150	-----	708	849	637	500	236	432	262
30-----	346	300	240	155	-----	695	854	653	488	236	448	262
31-----	338	-----	240	165	-----	691	-----	674	-----	230	432	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October-----	402	338	367	22,600
November-----	346	300	317	18,900
December-----	300	240	271	17,200
January-----	230	140	160	9,840
February-----	290	175	214	11,900
March-----	926	270	518	31,900
April-----	1,200	687	866	51,500
May-----	858	586	722	44,600
June-----	970	488	736	43,800
July-----	468	230	322	19,900
August-----	561	212	363	22,300
September-----	400	239	292	17,400
The year-----	1,200	140	430	312,000

## BEAR RIVER AT ALEXANDER, IDAHO

LOCATION.—Water-stage recorder in NW.  $\frac{1}{4}$  sec. 17, T. 9 S., R. 41 E., 600 feet downstream from Soda plant of Utah Power & Light Co., half a mile south-east of Alexander, and 5 miles below mouth of Soda Creek.

DRAINAGE AREA.—3,840 square miles.

RECORDS AVAILABLE.—March, 1911, to September, 1916; April, 1919, to September, 1930.

EXTREMES.—Maximum mean daily discharge during year, 1,260 second-feet July 6, 31; minimum, 219 second-feet Dec. 25.

1911–1916; 1919–1930: Maximum discharge, 4,590 second-feet May 9, 1922; maximum gage height, 15.95 feet Dec. 11, 1919; minimum discharge, 36 second-feet May 4, 1928.

REMARKS.—Records good. Numerous diversions for irrigation above station. Regulation caused by storage in Bear Lake Reservoir and operations at Soda power plant. Records collected by Utah Power & Light Co. under general supervision of Geological Survey in connection with a Federal Power Commission project.

*Daily and monthly discharge, in second-feet, 1929–30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	554	436	319	415	263	536	598	493	598	1,120	1,150	644
2	586	499	431	356	263	431	573	554	794	1,200	1,100	1,040
3	560	370	507	271	342	592	488	529	887	1,150	685	1,060
4	672	579	554	328	415	517	431	347	912	854	1,040	976
5	750	586	464	251	394	523	453	592	870	1,190	1,140	885
6	579	638	415	380	399	560	409	536	771	1,260	1,110	803
7	699	554	310	453	390	482	505	618	706	1,160	1,030	621
8	720	579	333	493	375	442	470	692	855	1,150	937	1,030
9	638	488	598	517	324	424	482	771	904	1,040	1,040	956
10	598	333	505	415	554	420	470	742	895	1,090	816	809
11	453	431	435	301	586	442	431	618	895	1,080	779	764
12	442	548	330	255	453	442	529	824	945	988	771	779
13	431	493	510	333	399	453	436	870	895	735	672	742
14	631	612	468	255	380	415	548	912	870	1,120	488	554
15	624	458	399	284	371	390	573	904	685	1,200	598	598
16	735	385	605	251	344	276	560	887	832	1,150	644	706
17	879	315	628	259	380	442	415	742	904	1,210	542	801
18	742	399	567	409	328	390	426	644	895	1,160	658	685
19	631	426	453	319	361	499	420	879	979	1,170	832	618
20	658	436	338	390	356	505	276	979	937	937	887	578
21	685	366	447	390	482	464	394	962	928	1,210	970	567
22	750	442	404	453	536	409	458	786	779	1,250	870	618
23	757	338	464	493	370	380	482	735	937	1,210	839	529
24	862	230	310	431	436	394	431	644	962	996	638	560
25	442	394	219	319	476	436	370	618	954	1,180	920	476
26	493	464	319	310	618	409	370	895	1,020	1,100	1,030	542
27	351	385	579	306	542	517	301	854	1,060	920	904	470
28	464	415	529	361	542	579	458	824	1,020	1,160	742	442
29	651	505	464	366	-----	560	442	862	786	1,130	996	536
30	554	529	536	375	-----	385	476	809	1,040	1,160	870	579
31	517	-----	573	347	-----	598	-----	879	-----	1,260	482	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	879	351	616	37,900
November	638	230	454	27,000
December	628	219	452	27,800
January	517	251	358	22,000
February	618	263	417	23,200
March	598	276	462	28,400
April	598	376	456	27,100
May	979	347	742	45,600
June	1,060	598	878	52,200
July	1,260	735	1,110	68,200
August	1,150	482	845	52,000
September	1,060	442	699	41,600
The year	1,260	219	626	453,000

## BEAR RIVER NEAR WESTON, IDAHO

LOCATION.—Water-stage recorder in SW.  $\frac{1}{4}$  sec. 17, T. 16 S., R. 39 E., at Weston-Fairview highway bridge 3 miles east of Weston.

RECORDS AVAILABLE.—October, 1919, to September, 1930. Comparable records obtained near Preston, Idaho, October, 1889, to January, 1917.

EXTREMES.—Maximum mean daily discharge during year, 1,520 second-feet July 18; minimum (estimated), 80 second-feet Apr. 20.

1919-1930: Maximum discharge, 6,100 second-feet May 8 or 9, 1922 (gage height, 12.1 feet); minimum, that of Apr. 20, 1930.

REMARKS.—Records fair. West Cache Canal and numerous irrigation ditches divert above station. Regulation caused by storage in Bear Lake Reservoir and operation of power plants above gage. Records furnished by Utah Power & Light Co.

## Daily and monthly discharge, in second-feet, 1929-30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	635	1,130				972	910	*710	532	955	915	524
2.....	750	860				710	1,280	*640	552	1,180	960	480
3.....	860	920				705	955	*770	353	966	1,110	900
4.....	845	500				945	1,010	*620	635	1,019	1,050	1,180
5.....	1,080	805				945	765	*710	488	735	830	625
6.....		915	955			920	1,190	*630	585	800	900	935
7.....		795	1,180			695	795	*780	565	890	850	1,050
8.....	1,210	1,030				605	845	*740	540	750	1,150	715
9.....	1,330	830				472	1,050	420	199	765	1,300	645
10.....	870	605				353	1,210	536	408	960	440	815
11.....		735	660			685	1,020	670	460	1,130	690	750
12.....	1,190	700				860	1,260	508	625	835	880	745
13.....	690	870				544	1,120	730	516	1,030	810	755
14.....	585	945				524	945	472	930	835	915	795
15.....	880	1,000				705	960	400	492	865	556	865
16.....	1,380	640				870	*1,030	585	350	820	900	570
17.....	972	635				670	*1,040	705	735	915	760	605
18.....	725	620				556	*840	795	810	1,520	472	825
19.....	1,040	690				580	*1,500	610	775	955	978	895
20.....	1,180	770				790	*80	314	880	1,490	905	865
21.....		840	1,110			630	*320	472	675	665	700	755
22.....	1,170	550				725	*850	710	580	820	670	605
23.....	1,090	490				720	*660	730	492	1,070	790	745
24.....	1,280	440				420	*680	600	860	920	845	484
25.....	875	1,020				625	*830	595	966	830	544	635
26.....	1,080	820				795	*900	294	820	1,180	925	472
27.....	750	710				805	*570	392	765	1,250	780	655
28.....	544	460				865	*260	512	1,000	905	850	685
29.....	910	730				1,040	*560	635	865	1,190	1,080	424
30.....	700	670				805	*580	544	610	1,060	960	650
31.....	950					855		436		1,100	1,100	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	1,380	544	931	57,200
November.....	1,180	440	777	46,800
December.....			*713	43,800
January.....			*655	40,300
February.....			*779	43,200
March.....	1,040	353	722	44,400
April.....	1,280	80	822	48,900
May.....	795	294	589	36,200
June.....	1,000	199	635	37,800
July.....	1,520	665	981	60,300
August.....	1,300	440	857	52,800
September.....	1,180	424	722	42,900
The year.....	1,520	80	763	554,000

\* Estimated from record of Bear River below Oneida.

## BEAR RIVER NEAR COLLINSTON, UTAH

LOCATION.—Water-stage recorder in W.  $\frac{1}{2}$  sec. 34, T. 13 N., P. 2 W., 1 mile below Cutler plant of Utah Power & Light Co. at Wheelor railroad siding and 4 miles north of Collinston.

DRAINAGE AREA.—6,000 square miles.

RECORDS AVAILABLE.—July, 1889, to September, 1930.

EXTREMES.—Maximum mean daily discharge during year, 3,100 second-feet Feb. 20; minimum, 23 second-feet June 12, July 14, 18.

1889-1930: Maximum discharge, 11,600 second-feet June 7-10, 1909 (gage height, 7.7 feet); practically no flow at midnight Aug. 5, 1920 (gage height, 0.42 foot).

REMARKS.—Records good. Numerous canals divert above station. Flow regulated by storage in reservoirs and operation of power plants above gage. Records furnished by Utah Power & Light Co.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	920	1,040	822	913	743	2,250	1,480	1,180	611	50	138	361
2	744	1,260	1,100	1,090	492	1,600	1,380	1,250	279	28	117	184
3	820	1,010	1,230	1,320	<sup>a</sup> 1,190	1,390	1,350	985	517	26	88	284
4	1,270	1,510	1,070	1,040	<sup>a</sup> 859	1,610	1,600	724	133	26	359	343
5	1,410	1,080	1,180	589	<sup>a</sup> 1,300	1,840	1,640	1,170	378	50	453	362
6	948	1,170	983	1,460	<sup>a</sup> 1,070	1,310	1,360	1,600	614	28	234	483
7	1,130	1,260	1,290	1,100	1,270	1,930	1,750	2,270	905	26	387	630
8	1,220	1,340	1,080	809	1,420	1,570	1,790	2,110	316	48	383	405
9	1,510	1,750	1,290	367	996	1,230	1,560	1,970	125	28	366	502
10	1,150	1,140	1,010	742	1,300	1,780	1,880	1,910	119	25	444	808
11	2,010	1,150	995	1,200	1,130	1,220	2,200	1,400	89	24	409	906
12	1,530	1,040	1,590	431	1,460	1,340	1,940	1,800	23	43	392	1,200
13	686	1,170	1,200	1,260	1,370	1,410	1,880	1,250	24	25	885	963
14	1,090	1,060	1,540	1,780	1,960	1,630	2,060	1,150	26	23	1,200	853
15	1,090	1,090	886	876	1,980	1,210	1,660	994	28	45	1,240	912
16	1,110	1,240	1,140	1,410	1,680	1,130	2,010	757	29	24	1,090	964
17	1,030	1,010	1,340	1,650	2,070	1,530	2,280	1,990	30	24	1,080	759
18	1,280	1,250	1,120	948	1,900	2,000	2,060	1,290	59	23	1,000	199
19	1,230	1,160	1,420	143	2,100	1,190	1,230	1,110	30	48	705	494
20	1,030	1,150	2,070	800	3,100	1,180	1,340	878	28	24	687	391
21	1,210	1,190	1,500	730	2,910	1,200	1,430	640	50	24	800	424
22	1,220	1,010	1,220	577	1,650	1,060	572	743	29	69	570	493
23	1,290	1,080	1,960	482	1,620	753	868	1,260	26	147	262	585
24	1,250	1,390	1,110	531	1,910	1,490	1,080	1,660	48	295	386	703
25	1,460	1,110	775	535	1,920	1,200	1,430	1,100	28	410	316	814
26	1,090	1,230	575	240	2,160	1,380	1,240	594	28	185	150	655
27	712	1,670	534	480	1,880	<sup>a</sup> 1,440	868	93	28	26	156	<sup>a</sup> 688
28	1,320	1,340	338	548	1,870	<sup>a</sup> 1,320	1,350	94	50	265	488	<sup>a</sup> 745
29	636	828	222	543	-----	<sup>a</sup> 1,360	1,870	90	29	134	421	<sup>a</sup> 755
30	1,060	802	851	569	-----	1,180	1,500	82	28	126	469	<sup>a</sup> 620
31	1,140	-----	1,080	590	-----	1,710	-----	292	-----	96	394	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,010	636	1,150	70,700
November	1,750	802	1,180	70,200
December	2,070	222	1,110	68,200
January	1,780	143	831	51,100
February	3,100	492	1,620	89,900
March	2,250	752	1,430	88,200
April	2,280	572	1,580	94,300
May	2,270	82	1,110	68,300
June	905	23	157	9,340
July	410	23	78	4,770
August	1,240	88	519	31,900
September	1,200	184	615	36,600
The year	3,100	23	945	684,000

<sup>a</sup> Estimated from electrical output of power plant.

## EAST FORK OF LITTLE BEAR RIVER NEAR AVON, UTAH

LOCATION.—Staff gage in NW.  $\frac{1}{4}$  sec. 18, T. 9 N., R. 2 E., at mouth of canyon,  $1\frac{1}{2}$  miles below Pole Creek,  $1\frac{1}{2}$  miles above diversion dam of Avon-Paradise Canal, and 2 miles east of Avon.

DRAINAGE AREA.—67 square miles.

RECORDS AVAILABLE.—April, 1927, to September, 1930.

EXTREMES.—1927-1930: Maximum discharge, about 800 second-feet Apr. 27, 1927; minimum, 14 second-feet several days in August and September, 1930.

REMARKS.—Records fair. No large diversions above station.

## Daily and monthly discharge, in second-feet, 1929-30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	May	June	July	Aug.	Sept.
1	18	18	16					*27	19	16	14
2	18	18	16					*28	19	16	14
3	18	18	16					*28	18	16	14
4	18	18	16					29	18	17	14
5	18	18	16					*27	18	17	16
6	18	18	16			16		26	18	16	14
7	18	18	16					*26	18	16	14
8	18	18	16					*27	18	16	14
9	18	18	16					*28	18	18	14
10	18	18	16			17		28	19	23	14
11	18	18	16			17		26	30	22	14
12	18	18	16			18		26	21	21	14
13	18	18	16			18		26	19	19	14
14	18	18	16			18		26	18	19	14
15	18	18	16		16	18		*24	18	18	14
16	18	18	16	15		18		23	17	17	14
17	18	17	16			18		23	17	17	14
18	18	17	16			18		23	17	16	14
19	18	17	16			18	46	23	17	16	14
20	18	17	16			18		24	17	15	14
21	18	17	16			21		23	17	14	14
22	18	16	16			23		*22	17	14	16
23	18	16	16			24		22	17	14	16
24	18	16	16			19		22	17	14	17
25	18	16	16			19		21	17	14	16
26	18	16	16			24		21	17	14	15
27	18	16	16			23		21	17	14	15
28	20	16	16					21	17	16	15
29	19	16	16			22	26	*20	17	15	16
30	18	16	16					19	16	14	16
31	18		16						16	14	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	20	18	18.1	1,110
November	18	16	17.2	1,020
December	16	16	16.0	984
January			*15	922
February			*16	889
March	24		18.7	1,180
June	29	19	24.3	1,450
July	30	16	18	1,110
August	23	14	16.5	1,010
September	17	14	14.6	869

\* Estimated.

NOTE.—No record on days for which no discharge is given.

## LOGAN RIVER ABOVE STATE DAM, NEAR LOGAN, UTAH

LOCATION.—Water-stage recorder in sec. 36, T. 12 N., R. 1 E., at Logan plant of Utah Power & Light Co., 125 feet above confluence of tailrace with river and 2½ miles east of Logan.

DRAINAGE AREA.—218 square miles.

RECORDS AVAILABLE.—May, 1913, to September, 1930. June, 1896, to December, 1912, at old station one-fourth mile downstream; flow at present station plus that of tailrace comparable to flow at old station.

EXTREMES.—Maximum discharge during year, 390 second-feet May 28 (gage height, 3.47 feet); minimum, 14 second-feet for several days.

1913-1930: Maximum discharge (estimated), 2,000 second-feet Mar. 21, 1916 (gage height, 5.6 feet); minimum, 8 second-feet Dec. 11, 1915.

REMARKS.—Records fair. Water is diverted from river and springs upstream for power, irrigation, and municipal supply. Flow regulated by operation of power plants above station. Gage-height record and results of several discharge measurements furnished by Utah Power & Light Co.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	20	15	15	15	15	16	78	277	44	16	16
2	14	20	15	14	16	15	16	120	235	42	16	17
3	14	20	15	14	16	16	17	153	201	38	16	16
4	14	20	15	14	15	16	23	142	175	27	16	16
5	14	20	15	15	15	17	19	135	156	24	16	16
6	14	20	15	15	15	17	17	109	156	22	30	17
7	14	20	15	15	15	17	25	105	186	21	17	17
8	86	20	15	14	16	17	23	98	225	22	16	16
9	90	17	15	15	17	16	39	82	225	22	16	16
10	21	15	15	15	16	16	69	94	204	30	16	17
11	20	15	15	15	15	17	73	116	201	66	17	16
12	20	15	15	15	16	18	90	111	204	40	17	16
13	21	15	15	17	17	20	80	103	198	16	17	16
14	21	15	15	17	17	20	98	118	166	17	17	16
15	22	14	15	16	18	20	80	132	137	16	17	17
16	20	15	15	16	18	20	68	132	120	16	16	17
17	20	14	15	16	18	20	28	135	114	16	16	16
18	20	15	15	17	17	20	22	132	106	16	16	16
19	20	15	15	17	17	20	24	132	96	16	18	16
20	21	15	16	20	17	20	28	164	88	15	16	16
21	21	15	15	17	17	20	36	243	98	14	16	16
22	21	15	15	16	18	20	66	201	65	14	16	17
23	21	15	15	16	18	20	116	169	61	14	17	17
24	21	15	15	17	17	21	175	178	54	15	16	16
25	21	15	15	17	17	22	192	207	58	14	16	16
26	21	15	15	22	17	15	161	243	61	14	16	17
27	21	15	15	22	17	15	128	274	64	14	16	17
28	21	15	15	17	17	15	120	314	58	14	17	16
29	21	15	15	15	15	15	98	320	36	15	17	16
30	21	15	14	15	15	15	76	349	43	16	17	17
31	20	14	15	15	15	30	345	345	16	17	17	17

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	90	14	23.5	1,440
November	20	14	16.3	970
December	15	14	14.9	916
January	22	14	16.2	996
February	18	15	16.6	922
March	30	15	18.2	1,120
April	192	16	67.4	4,010
May	349	82	169	10,400
June	277	36	135	8,030
July	66	14	22.1	1,360
August	30	16	16.9	1,040
September	17	16	16.4	976
The year	349	14	44.4	32,200

## UTAH POWER &amp; LIGHT CO.'S TAILRACE NEAR LOGAN, UTAH

LOCATION.—Water-stage recorder in NE.  $\frac{1}{4}$  sec. 36, T. 12 N., R. 1 E., 100 feet below power house of Utah Power & Light Co.,  $2\frac{1}{2}$  miles east of Logan.

RECORDS AVAILABLE.—May, 1913, to September, 1930.

REMARKS.—Records good. Flow regulated by operation of power plant above gage. This canal diverts from right bank of Logan River in SE.  $\frac{1}{4}$  SW.  $\frac{1}{4}$  sec. 29, T. 12 N., R. 2 E., for power development. Water returned to river 125 feet below gaging station on Logan River above State dam. Gage-height record and results of several discharge measurements furnished by Utah Power & Light Co.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	150	123	110	97	91	85	97	169	175	175	135	108
2	146	121	110	96	90	84	94	170	172	175	131	108
3	145	118	107	97	89	83	96	170	172	175	128	104
4	144	127	105	97	90	81	116	170	176	175	132	104
5	142	128	108	93	89	84	152	170	176	175	132	105
6	141	135	108	92	89	84	163	170	175	175	112	105
7	142	127	107	91	89	84	168	172	175	175	132	102
8	132	123	107	90	90	89	181	170	176	172	134	105
9	145	120	110	82	89	88	178	172	176	172	128	104
10	138	114	116	86	88	82	175	172	176	178	128	103
11	137	131	113	90	90	83	175	172	175	178	130	96
12	138	127	113	92	93	83	175	172	175	175	128	96
13	137	123	108	97	91	83	175	172	175	175	130	100
14	137	118	105	98	92	90	175	172	174	172	128	98
15	137	113	105	97	91	85	175	172	174	169	128	100
16	131	112	105	98	92	90	163	172	174	164	127	100
17	127	109	103	98	89	92	178	172	175	164	123	99
18	127	125	102	88	88	91	175	172	175	164	120	97
19	123	123	102	94	88	86	175	172	174	164	117	94
20	124	128	100	98	86	88	175	174	174	162	114	92
21	123	123	98	89	91	89	175	175	153	156	114	89
22	125	109	99	81	91	93	175	176	176	152	112	92
23	124	105	100	81	92	99	175	178	176	150	112	99
24	124	107	100	88	90	98	175	178	175	148	110	99
25	120	107	100	97	86	97	170	178	175	145	110	96
26	120	107	99	98	85	96	168	174	175	144	108	92
27	121	112	99	98	84	96	168	176	175	141	108	93
28	123	109	97	97	84	96	162	178	175	139	107	92
29	123	112	97	96	-----	94	168	176	174	138	105	92
30	123	109	96	97	-----	97	168	178	174	137	108	90
31	121	-----	96	93	-----	96	-----	175	-----	135	105	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	150	120	132	8,120
November	135	105	118	7,020
December	116	96	104	6,400
January	98	81	93.0	5,720
February	93	84	89.2	4,950
March	99	81	89.2	5,480
April	181	94	162	9,640
May	178	169	173	10,600
June	176	153	174	10,400
July	178	135	162	9,960
August	135	105	121	7,440
September	108	89	98.5	5,860
The year	181	81	126	91,600



## LOGAN, HYDE PARK &amp; SMITHFIELD CANAL NEAR LOGAN, UTAH

LOCATION.—Water-stage recorder in SE.  $\frac{1}{4}$  sec. 25, T. 12 N., R. 1 E., at concrete rating flume  $1\frac{1}{4}$  miles below head of canal and  $2\frac{1}{2}$  miles east of Logan.

RECORDS AVAILABLE.—June, 1904, to December, 1907; January, 1909, to September, 1930.

REMARKS.—Records fair. No diversions above gage. Flow regulated by head gates at diversion works. This canal diverts water from Logan River in NE.  $\frac{1}{4}$  NE.  $\frac{1}{4}$  sec. 31, T. 12 N., R. 2 E., for irrigation and domestic use in territory north of Logan. Gage-height record furnished by Logan, Hyde Park & Smithfield Canal Co. Results of several discharge measurements furnished by Utah Light & Power Co.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8			5				77	130	59	36	29
2	8							89	97	58	36	28
3	8							96	103	58	40	27
4	8				5			93	115	66	38	28
5	7					4	15	92	115	64	37	30
6	7							81	115	63	36	29
7								64	115	58	36	28
8								63	115	55	32	29
9							24	62	113	50	34	28
10			6					30	123	37	34	29
11							31	0	122	0	35	27
12								0	131	17	34	27
13								0	129	44	34	28
14						0		0	122	42	34	27
15							38	0	117	39	32	27
16							24	0	126	42	29	28
17							20	20	124	38	31	28
18			6				22	30	129	37	33	28
19			6				28	45	127	38	36	28
20			6				36	75	125	36	31	26
21			6				50	84	122	39	30	26
22			6				59	81	120	38	30	27
23			6				70	85	116	39	30	28
24			6				80	95	108	38	30	28
25			6				86	104	100	40	31	28
26			5				88	115	82	40	31	27
27			5				94	125	73	38	30	27
28			5				92	131	77	36	32	26
29			5				89	134	86	35	34	26
30			5			5	85	136	69	35	32	26
31			5					136		36	29	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October			• 7	430
November			• 7	417
December			• 5.8	357
January			• 5	307
February			• 5	278
March			• 3	184
April	94		42	2,500
May	136	0	69.1	4,280
June	131	69	112	6,660
July	66	0	42.4	2,610
August	40	29	33.1	2,040
September	30	26	27.6	1,640
The year	136	0	29.9	21,700

• Estimated.

NOTE—No record on days for which no discharge is given.

## BLACKSMITH FORK AT MUNICIPAL POWER PLANT NEAR HYRUM, UTAH

LOCATION.—Water-stage recorder in SE.  $\frac{1}{4}$  sec. 2, T. 10 N., R. 2 E., 200 feet below Hyrum municipal power plant, 1 mile above Left Fork, and  $8\frac{1}{2}$  miles east of Hyrum.

DRAINAGE AREA.—153 square miles.

RECORDS AVAILABLE.—October, 1929, to September, 1930.

EXTREMES.—Maximum discharge during year, 250 second-feet Apr. 25 (gage height, 3.80 feet); minimum not determined.

REMARKS.—Records fair. Flow affected by operations at power plant.

## Daily and monthly discharge, in second-feet, 1929-30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						65	83	116	90	71	67	72
2						61	80	109	86	70	68	72
3						61	80	113	84	71	72	72
4					65	61	100	120	84	71	75	68
5						71	106	137	86	74	72	72
6						67	105	126	92	72	70	72
7						62	125	106	94	72	70	71
8					67	60	128	132	92	70	70	72
9						57	114	95	90	71	72	86
10						59	113	98	92	77	86	76
11						59	120	89	92	97	83	66
12						61	130	90	90	84	85	63
13						63	113	95	92	77	88	65
14					70	65	123	97	89	75	82	66
15		72				68	125	100	89	74	71	66
16	75			58		65	106	108	88	74	72	67
17						63	74	105	84	71	72	67
18			71			66	77	103	83	75	74	67
19						74	71	116	105	83	72	67
20						72	76	103	108	83	74	67
21					74	79	106	114	83	74	72	65
22					71	83	114	113	88	75	72	63
23					72	86	113	103	80	71	72	70
24					71	83	137	92	76	72	72	76
25					68	76	175	98	74	70	72	75
26					63	77	137	94	71	67	72	68
27					68	83	128	94	70	67	71	67
28					68	79	123	92	74	67	79	66
29						76	116	90	74	67	79	62
30						76	106	92	71	67	77	62
31						82		97		67	75	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October			* 75	4,610
November			* 72	4,280
December			* 70	4,300
January			* 58	3,570
February			68.7	3,820
March	86	57	69.7	4,290
April	175	74	113	6,720
May	137	80	104	6,400
June	94	70	84.0	5,000
July	97	67	72.6	4,460
August	83	67	74.5	4,580
September	86	62	68.9	4,100
The year	175		77.5	56,100

\* Estimated.

## BLACKSMITH FORK ABOVE UTAH POWER &amp; LIGHT CO.'S DAM NEAR HYRUM, UTAH

LOCATION.—Water-stage recorder in NE.  $\frac{1}{4}$  sec. 8, T. 10 N., R. 2 E., 1 mile above diversion dam,  $3\frac{1}{2}$  miles above power plant of Utah Power & Light Co., and 6 miles east of Hyrum.

DRAINAGE AREA.—260 square miles.

RECORDS AVAILABLE.—July, 1900, to December, 1902; November, 1913, to September, 1930.

EXTREMES.—Maximum discharge during year, 244 second-feet Apr. 25 (gage height, 2.28 feet); minimum, about 55 second-feet during winter.

1913-1930: Maximum discharge, about 1,620 second-feet May 15, 1917 (gage height, 6.5 feet); minimum, about 22 second-feet Feb. 6, 1916 (gage height, 0.85 foot).

REMARKS.—Records fair. No large diversions above station. Gage-height record and results of several discharge measurements furnished by Utah Power & Light Co.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	91	90	83	81	* 70	75	90	143	111	94	80	85
2	93	91	82	81		72	87	133	109	* 90	80	81
3	93	91	81	80		71	87	139	107		83	79
4	93	93	81	80		74	97	141	106		85	77
5	91	91	82	80		81	109	153	106		83	79
6	91	91	76	* 70	79	79	111	147	106		82	79
7	91	91	77	60	75	75	135	131	* 105	87	81	79
8	93	91	80	58	73	75	151	149	* 104	87	81	76
9	93	91	83		72	71	151	128	103	87	81	83
10	90	91	83		70	71	166	124		87	93	87
11	90	93	82		71	73	168	115		88	93	80
12	90	91	82		75	74	184	115	* 100	97	86	75
13	90	90	81		76	76	166	121		95	95	75
14	90	90	80		85	79	188	121		90	91	75
15	90	90	80		80	81	177	124		87	83	75
16	90	90	85		79	80	143	135		87	86	75
17	90	87	81		79	79	111	131	94	85	87	75
18	90	85	81		80	79	111	128	94	85	90	73
19	90	83	82		80	83	155	130	94	85	90	75
20	90	85	81	* 60	81	87	145	131	95	85	90	75
21	90	86	* 81		81	90	147	137	95	85	91	74
22	90	83	* 81		80	93	155	137	95	85	93	73
23	90	83	* 82		82	94	153	128	94	85	93	80
24	86	83	82		80	93	168		91	85	93	85
25	88	83	82		79		205		90	83	93	83
26	85	82	82		75	* 92	170		88	82	91	82
27	87	82	82		77		159	* 115	88	81	93	80
28	90	82	82		76		151		90	80	98	80
29	90	83	82				85		95	80	95	80
30	90	85	82				85		94	80	94	79
31	90		82			88				80	87	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	93	85	90.2	5,550
November	93	82	87.6	5,210
December	85	76	81.4	5,010
January	81		63.5	3,900
February	85		75.9	4,220
March		71	81.6	5,020
April	205	87	144	8,570
May	153		128	7,870
June	111	88	98.5	5,860
July	97	80	86.5	5,320
August	98	80	88.4	5,440
September	87	73	78.5	4,670
The year	205		92.0	66,600

\* Estimated.

**LOCATION.**—Water-stage recorder in SW.  $\frac{1}{4}$  sec. 27, T. 13 N., R. 2 W., at Wheelon siding on Oregon Short Line Railroad, 4,200 feet below Cutler Dam and 4 miles north of Collinston.

REMARKS.—Canal diverts from west side of Bear River in NW.  $\frac{1}{4}$  SW.  $\frac{1}{4}$  sec. 26, T. 13 N., R. 2 W., at same diversion dam as Hammond (East Side) Canal and Cutler power plant. Records furnished by Utah Power & Light Co.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	290	180	50	35	58	20	0	159	637	650	610	527
2	301	179	50	35	65	21	0	223	646	651	605	528
3	301	179	49	35	51	21	0	245	662	657	587	527
4	300	147	48	34	47	21	0	250	673	666	571	541
5	297	111	48	34	41	21	0	196	666	664	569	547
6	299	108	48	34	30	21	0	169	655	660	539	547
7	296	105	47	35	26	20	0	169	646	660	543	544
8	265	103	47	35	26	20	0	168	624	664	544	531
9	229	102	46	35	22	23	0	166	624	664	555	520
10	213	89	46	36	24	23	0	163	627	659	567	517
11	210	77	45	35	24	24	0	162	642	637	555	517
12	208	74	45	33	25	24	0	162	651	613	499	514
13	211	74	44	32	26	24	0	186	660	597	388	515
14	211	72	44	32	26	24	0	204	662	592	174	512
15	211	71	42	31	27	24	0	208	655	584	176	511
16	211	71	42	30	24	24	0	204	660	586	193	507
17	212	72	42	29	22	24	0	205	669	579	202	504
18	212	71	42	28	21	8	0	203	666	573	238	507
19	212	80	41	27	20	6	0	220	637	576	289	487
20	211	87	41	27	19	26	0	251	621	578	343	480
21	212	81	40	27	19	25	0	284	655	573	374	474
22	211	64	39	30	19	25	0	324	668	565	402	430
23	211	64	39	29	19	28	0	346	668	565	444	351
24	211	64	38	27	19	28	0	409	660	567	452	354
25	210	63	37	27	20	28	0	454	655	555	494	333
26	210	62	36	32	20	28	95	551	655	541	519	309
27	211	62	36	33	20	24	138	602	655	554	549	306
28	211	62	36	34	20	24	154	632	653	570	525	305
29	211	60	37	35	-----	24	131	644	653	605	523	303
30	211	60	36	39	-----	24	114	650	651	495	523	296
31	199	-----	35	45	-----	14	-----	653	-----	621	527	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	301	199	233	14,300
November.....	180	60	89.8	5,340
December.....	50	35	42.5	2,610
January.....	45	27	32.6	2,000
February.....	65	19	27.9	1,550
March.....	28	0	22.3	1,370
April.....	154	0	21.1	1,280
May.....	653	159	305	18,800
June.....	673	621	652	38,800
July.....	666	495	604	37,100
August.....	610	174	454	27,900
September.....	547	296	461	27,400
The year.....	673	0	247	178,000

## HAMMOND (EAST SIDE) CANAL NEAR COLLINSTON, UTAH

LOCATION.—Water-stage recorder in SE.  $\frac{1}{4}$  sec. 27, T. 13 N., R. 2 W., at Wheelon siding on Oregon Short Line Railroad, 3,600 feet below Cutler Dam and 4 miles north of Collinston.

RECORDS AVAILABLE.—June, 1912, to September, 1930.

REMARKS.—Canal diverts from west side of Bear River in NW.  $\frac{1}{4}$  SW.  $\frac{1}{4}$  sec. 26, T. 13 N., R. 2 W., at same diversion dam as West Side Canal and Cutler power plant. Records furnished by Utah Power & Light Co.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Apr.	May	June	July	Aug.	Sept.
1	72	33	0	37	161	165	159	119
2	72	33	0	60	162	165	155	118
3	72	33	0	81	140	165	129	119
4	72	33	0	81	134	165	135	119
5	80	10	0	60	135	165	140	119
6	90	0	0	53	135	166	144	118
7	98	0	0	52	127	166	144	119
8	85	0	0	51	114	166	144	117
9	70	0	0	51	123	166	141	118
10	42	0	0	49	127	166	129	117
11	43	0	0	49	125	167	129	116
12	45	0	0	49	132	167	84	128
13	45	0	0	18	146	167	63	133
14	46	0	0	47	158	167	39	134
15	45	0	0	66	161	168	39	134
16	45	0	0	75	160	164	39	134
17	45	0	0	74	159	157	43	134
18	45	0	0	74	159	155	62	133
19	44	0	0	74	158	160	66	132
20	44	0	0	76	158	160	82	133
21	39	0	33	78	158	160	100	132
22	35	0	41	82	158	160	114	97
23	36	0	43	84	158	160	130	55
24	26	0	38	98	158	160	137	55
25	47	0	35	104	159	160	148	54
26	47	0	36	141	159	160	155	54
27	47	0	50	160	159	164	154	54
28	40	0	57	159	162	165	143	55
29	34	0	44	161	165	165	143	55
30	34	0	37	161	165	165	132	54
31	34			160		165	119	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	98	26	52.2	3,210
November	33	0	4.7	280
April	57	0	13.8	821
May	161	18	82.7	5,080
June	165	114	140	8,870
July	168	155	164	10,100
August	159	39	114	7,010
September	134	54	105	6,250
The year	168	0	57.5	41,600

NOTE.—No flow during months omitted.

## WEBER RIVER BASIN

## WEBER RIVER NEAR OAKLEY, UTAH

**LOCATION.**—Staff gage in NE.  $\frac{1}{4}$  sec. 15, T. 1 S., R. 6 E., near mouth of canyon, 2 miles below South Fork of Weber River, 3 miles northeast of Oakley, and 6 miles above Beaver or Kamas Creek.

**DRAINAGE AREA.**—163 square miles.

**RECORDS AVAILABLE.**—October, 1904, to September, 1930.

**EXTREMES.**—Maximum discharge during year, 1,510 second-feet May 30 (gage height, 7.0 feet); minimum, about 50 second-feet during winter.

1904–1930: Maximum discharge, 4,000 second-feet July 6, 1907, June 5–7, 1909; minimum, 46 second-feet part of February and March, 1908 (gage height, 4.0 feet).

**REMARKS.**—Records fair. No large diversions above gage. Flow regulated slightly by storage in Fish Lake and a small reservoir on Smith and Morehouse Creeks. Total capacity of both reservoirs, about 1,500 acre-feet. Results of several discharge measurements furnished by Weber River water commissioner.

*Daily and monthly discharge, in second-feet, 1929–30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	65					72	339	835	251	183	82
2	88	65					79	378	630	235	135	82
3	86	65					86	465	570	214	158	79
4	84	65	65				94	420	630	200	146	82
5	80	66				72	102	399	695	200	125	97
6	79	68					111	378	910	189	125	97
7	79	69					131	339	1,070	186	135	94
8	79	71					166	302	1,330	181	135	92
9	85	72					192	284	1,240	168	125	82
10	80	72					205	267	1,150	163	125	82
11	79	71	58				235	• 260	1,240	176	135	79
12	78	52			58	72	267	251	1,240	170	146	78
13	76	58					284	205	1,070	163	183	75
14	76	64					302	267	910	158	170	75
15	76	65					267	267	695	149	146	75
16	76	64					235	302	695	142	135	71
17	75	62					205	302	695	153	• 130	72
18	75	61	52				205	339	630	138	125	71
19	75				58	72	205	339	570	131	115	72
20	73						235	378	630	127	106	68
21	72						267	470	515	113	101	68
22	71						302	465	515	119	97	68
23	69						378	• 490	515	163	94	97
24	68						515	515	420	119	90	90
25	68	• 60					515	630	378	119	97	90
26	66				58	72	420	765	339	119	115	90
27	65						378	990	320	109	111	90
28	65						378	1,240	302	101	• 100	90
29	64			50			339	1,280	284	115	94	90
30	58		60			72	339	1,510	267	123	90	97
31	64					72		1,240		119	85	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	90	58	74.8	4,600
November	72		63.2	3,760
December			• 60	3,690
January			• 50	3,070
February			• 55	3,050
March			• 70	4,300
April	515	72	250	14,900
May	1,510	205	522	32,100
June	1,330	267	710	42,200
July	251	101	155	9,530
August	183	85	124	7,620
September	97	68	82.5	4,910
The year	1,510		185	134,000

• Estimated.

## WEBER RIVER NEAR COALVILLE, UTAH

LOCATION.—Staff gage in NE.  $\frac{1}{4}$  sec. 20, T. 2 N., R. 5 E., at river bridge above high-water contour for Echo Reservoir,  $1\frac{1}{2}$  miles south of Coalville.

DRAINAGE AREA.—438 square miles.

RECORDS AVAILABLE.—April, 1927, to September, 1930.

EXTREMES.—Maximum discharge during year, 1,170 second-feet May 30 (gage height, 3.16 feet); minimum, 25 second-feet July 9 (gage height, 0.18 foot).

1927-1930: Maximum discharge, 1,960 second-feet June 17, 1929 (gage height, 4.30 feet); minimum, that of July 9, 1930.

REMARKS.—Records fair. Numerous irrigation diversions above and below station. Flow slightly regulated by two small reservoirs above station. Gage-height record and results of several discharge measurements furnished by Weber River water commissioner.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	154	128	130	-----	-----	90	178	441	815	99	61	88
2	149	128		-----	-----	62	172	478	615	88	85	88
3	149	128		-----	-----	86	178	418	498	72	82	85
4	149	128		-----	-----	124	214	418	469	64	78	88
5	145	126		-----	-----	120	198	408	460	62	77	95
6	139	128	134	-----	-----	116	214	469	637	48	66	88
7	130	130		-----	-----	101	222	441	839	40	72	88
8	143	126		-----	-----	92	276	432	976	34	75	88
9	139	124		-----	-----	97	315	450	1,040	25	85	88
10	136	120		-----	-----	97	351	390	914	34	85	85
11	136	126	132	-----	-----	112	374	367	964	48	110	78
12	132	122	132	-----	-----	116	382	359	1,120	95	102	78
13	132	108	122	-----	-----	128	424	315	914	72	195	72
14	132	120	118	-----	-----	149	424	263	707	56	206	72
15	130	132	112	-----	-----	168	398	276	592	53	152	69
16	126	126	110	-----	-----	182	359	302	549	46	139	69
17	128	124	110	-----	-----	154	315	308	518	46	130	69
18	132	122	108	-----	-----	149	308	276	518	75	126	69
19	128	122	110	-----	-----	149	315	289	441	58	110	66
20	126	110	110	-----	-----	154	322	276	441	56	99	58
21	126	106	83	-----	-----	225	329	344	351	53	92	56
22	122	93	104	-----	-----	248	415	424	302	53	85	64
23	118	101	108	-----	-----	248	508	382	367	51	92	92
24	116	141	130	-----	-----	225	570	382	276	48	92	110
25	116	132		-----	-----	208	779	469	228	46	99	130
26	116	132		-----	102	208	637	649	195	42	130	106
27	120	130		-----	93	178	560	827	170	36	95	95
28	120			-----	93	154	518	988	161	34	99	95
29	128			-----	-----	149	528	1,120	143	38	92	92
30	128			-----	116	-----	178	508	1,170	126	48	92
31	128	-----	-----	-----	-----	198	-----	1,000	-----	48	95	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	154	116	131	8,060
November		93	123	7,320
December		83	120	7,380
January			* 110	6,150
February			* 120	6,660
March	248	62	150	9,220
April	779	172	376	22,400
May	1,170	263	488	30,000
June	1,120	126	545	32,400
July		99	25	3,310
August	206	61	103	6,330
September	130	56	84.2	5,010
The year	1,170	25	200	144,000

\* Estimated.

## WEBER RIVER AT ECHO, UTAH

LOCATION.—Staff gage in SE.  $\frac{1}{4}$  NE.  $\frac{1}{4}$  sec. 25, T. 3 N., R. 4 E., one-fourth mile downstream from Echo Dam, one-fourth mile upstream from Echo Creek, and half a mile southeast of Echo.

DRAINAGE AREA.—732 square miles.

RECORDS AVAILABLE.—April, 1927, to September, 1930.

EXTREMES.—Maximum mean daily discharge during year, 1,080 second-feet June 12 (gage height, 2.54 feet); minimum, 49 second-feet July 24.

1927-1930: Maximum discharge, 2,210 second-feet May 26, 1929; minimum, 47 second-feet Aug. 30, 31, 1928.

REMARKS.—Records fair. Numerous irrigation diversions above and below station. One small diversion between gage and Echo dam site. Flow regulated by Echo Reservoir. Gage-height record and results of several discharge measurements furnished by Weber River water commissioner.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	195	160	146	141		141	222	630	681	342	84	228
2	190	160	137	155		195	217	692	582	334	88	228
3	187	169	155	137		184	247	758	542	319	104	228
4	187	169	174	128		179	266	731	498	304	108	222
5	184	169	164	155		174	286	679	503	311	101	217
6	169	174	160			164	346	655	521	350	108	152
7	169	174	155			150	422	642	594	342	112	120
8	214	169	160			141	519	607	686	315	104	116
9	217	164	155			120	540	630	792	293	108	112
10	211	137	164			124	561	540	983	293	108	108
11	206	146	174			132	578	529	916	90	104	104
12	190	155	169			141	595	508	1,080	87	101	104
13	195	164	155			155	642	469	859	61	67	99
14	190	179	146		150	174	642	422	686	66	60	97
15	190	174	150			211	540	436	643	64	63	95
16	184	179	155			211	545	431	570	130	103	95
17	184	164	146	140		211	422	479	493	202	104	94
18	179	160	141			206	422	501	582	318	104	94
19	174	150	141			184	427	273	589	354	103	87
20	179	141	137			179	488	195	503	374	101	84
21	174	137	132			234	540	260	488	387	116	77
22	174	132	128			300	655	298	464	215	116	87
23	169	137	137			286	705	255	441	63	137	124
24	160	150	137			273	744	292	418	49	128	162
25	155	164	155			259	970	382	392	126	137	172
26	150	174	150			253	875	472	374	71	84	143
27	164	179	141		141	240	772	503	370	64	220	135
28	164	160	128		132	228	655	568	379	63	231	132
29	169	155	128			222	679	676	383	68	228	137
30	169	150	128	145		211	661	744	370	71	234	150
31	169		137	145		234		758		87	222	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	217	150	181	11,100
November	179	132	160	9,520
December	174	128	148	9,100
January			141	8,670
February			149	8,280
March	300	120	197	12,100
April	970	217	538	32,000
May	758	195	517	31,800
June	1,080	370	579	34,500
July	387	49	200	12,300
August	234	60	122	7,500
September	228	77	133	7,910
The year	1,080	49	255	185,000



## WEBER RIVER AT DEVILS SLIDE, UTAH

LOCATION.—Staff gage in SW.  $\frac{1}{4}$  sec. 19, T. 4 N., R. 4 E., 500 feet downstream from highway bridge at Devils Slide and one-fourth mile below Lost Creek.

DRAINAGE AREA.—1,090 square miles.

RECORDS AVAILABLE.—February, 1905, to September, 1930.

EXTREMES.—Maximum discharge during year, 1,240 second-feet Apr. 25; minimum, 71 second-feet July 29.

1905-1930: Maximum discharge, 6,000 second-feet May 22, 1920; minimum, 31 second-feet Sept. 3, 1919.

REMARKS.—Records fair. Discharge estimated Jan. 17-26 because of ice effect. Numerous diversions above station for irrigation and domestic use. Flow regulated by storage in Echo Reservoir. Results of several discharge measurements furnished by Weber River water commissioner.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	234	211	182	136	179	179	292	758	786	435	85	242
2	226	222	158	149	182	146	318	800	636	404	124	242
3	230	219	162	124	182	162	323	856	587	380	119	238
4	222	211	143	143	165	211	346	842	511	341	116	238
5	219	211	215	165	165	219	355	835	511	365	97	275
6	208	219	155	130	175	211	414	765	517	380	110	254
7	208	211	165	116	193	155	523	772	587	380	113	222
8	215	211	175	100	196	127	695	807	695	365	116	182
9	219	200	196	146	189	211	723	723	751	318	119	127
10	230	208	211	155	175	149	709	662	1,060	337	130	121
11	219	219	215	146	193	182	723	643	807	140	105	105
12	219	155	200	165	204	200	744	606	1,090	121	186	119
13	219	158	196	172	211	222	765	557	765	83	113	110
14	215	211	182	158	211	266	779	523	682	90	97	108
15	211	230	182	155	234	296	695	511	688	87	92	108
16	208	234	189	175	258	284	552	517	552	78	124	119
17	215	222	189	166	292	296	528	569	484	175	127	100
18	211	208	140	160	283	258	517	758	528	288	127	100
19	204	208	143	154	300	242	528	341	630	346	124	97
20	204	175	165	148	283	270	587	262	534	370	119	92
21	204	158	110	142	300	314	688	350	511	404	136	85
22	200	116	136	136	258	394	814	370	480	130	130	95
23	200	149	136	143	283	456	891	292	478	100	155	175
24	200	155	152	150	234	355	980	318	500	73	158	179
25	204	165	175	157	215	292	1,240	355	467	119	127	200
26	204	200	172	164	208	300	1,080	462	456	87	105	175
27	208	211	119	172	186	337	965	489	456	83	138	152
28	204	219	127	165	169	292	912	606	472	97	242	149
29	219	211	140	158	-----	300	870	723	478	71	242	146
30	226	200	130	155	-----	327	856	751	467	78	234	152
31	226	-----	143	172	-----	323	-----	779	-----	83	234	-----
Month	Maximum					Minimum		Mean		Run-off in acre-feet		
October	234					200		214		13,200		
November	222					116		198		11,800		
December	215					110		165		10,100		
January	175					100		151		9,280		
February	300					155		218		12,100		
March	456					127		257		15,800		
April	1,240					292		680		40,500		
May	856					262		600		36,900		
June	1,090					456		606		36,100		
July	435					71		220		13,500		
August	242					85		137		8,420		
September	275					85		157		9,340		
The year	1,240					71		300		217,000		

## WEBER RIVER AT GATEWAY, UTAH

**LOCATION.**—Water-stage recorder in NW.  $\frac{1}{4}$  SW.  $\frac{1}{4}$  sec. 27, T. 5 N., R. 1 E., 2,500 feet below mouth of Strawberry Creek, 800 feet below Union Pacific Railroad bridge, and 2,500 feet above section house at Gateway. Prior to Oct. 22, 1929, water-stage recorder at site 2,200 feet upstream was used.

**DRAINAGE AREA.**—1,610 square miles.

**RECORDS AVAILABLE.**—June to September, 1919; July, 1920, to September, 1930. October, 1889, to July, 1903, at a station 1 mile downstream known as Weber River near Uinta, Utah. Records comparable.

**EXTREMES.**—Maximum discharge during year, 1,660 second-feet Apr. 25 (gage height, 3.73 feet); minimum, about 160 second-feet during January. 1889–1903, 1919–1930: Maximum discharge, 7,980 second-feet May 31, 1896; minimum, 65 second-feet Aug. 7–13, 1898.

**REMARKS.**—Records fair. Numerous diversions for irrigation above and below station. Flow affected by storage in East Canyon Creek and Echo Reservoirs. Results of two discharge measurements furnished by Weber River water commissioner.

*Daily and monthly discharge, in second-feet, 1929–30.*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	320	286	269	210	}	280	454	1,110	851	449	337	283
2.....	313	276	252	213		280	479	1,100	720	440	362	286
3.....	309	286	224	213		286	521	1,130	702	411	345	286
4.....	302	283	227	221			563	1,150	618	393	320	290
5.....	294	279	259	233			590	1,150	590	370	313	337
6.....	277	279	259	249	}	300	663	1,080	596	375	301	313
7.....	273	286	243	215			771	1,050	624	384	305	301
8.....	273	286	236	213		309	902	1,080	708	402	316	294
9.....	298	272	252	201			990	1,040	760	375	328	269
10.....	291	279	262	188			1,030	919	966	398	362	221
11.....	277	286	276	}	300		1,050	874	874	380	388	269
12.....	277	269	276			395	1,100	828	1,040	305	366	269
13.....	277	230	272				1,110	777	972	249	294	276
14.....	280	240	206				1,150	714	742	215	246	269
15.....	277	272	255				1,090	680	714	177	196	279
16.....	273	286	259	}	175		972	691	629	162	190	286
17.....	277	286	262			479	862	742	574	167	199	286
18.....	277	279	246				799	742	563	230	199	286
19.....	273	276	233			485	811	585	646	316	213	294
20.....	273	262	243				891	469	624	349	269	301
21.....	277	230	210	}	163	490	1,020	495	574	375	269	297
22.....	277	210	215			384	635	1,180	505	563	358	279
23.....	283	215	227				662	1,310	430	531	309	276
24.....	283	227	227				563	1,460	406	526	345	286
25.....	279	243	236				490	1,630	440	495	349	279
26.....	269	262	243	}	200	325	547	1,550	526	474	362	283
27.....	269	272	224				510	1,410	558	474	349	249
28.....	279	272	221				449	1,310	596	459	345	279
29.....	283	269	215				435	1,240	691	469	345	279
30.....	286	269	218				500	1,160	788	469	320	272
31.....	286		221	231			505		856		316	279
Month						Maximum	Minimum	Mean	Run-off in acre-feet			
October.....						320	269	283	17,400			
November.....						286	210	265	15,800			
December.....						276	210	243	14,900			
January.....						249		197	12,100			
February.....								308	17,100			
March.....						652		427	26,300			
April.....						1,630	454	1,000	59,500			
May.....						1,150	406	781	48,000			
June.....						1,040	459	652	38,800			
July.....						449	162	333	20,500			
August.....						388	190	286	17,600			
September.....						421	221	298	17,700			
The year.....						1,630		422	306,000			

## WEBER RIVER NEAR PLAIN CITY, UTAH

LOCATION.—Chain gage in SE.  $\frac{1}{4}$  sec. 5, T. 6 N., R. 2 W., at county highway bridge 6 miles above mouth, 1 mile south of Plain City, and 1 mile below mouth of Fourmile Creek.

DRAINAGE AREA.—2,060 square miles.

RECORDS AVAILABLE.—May, 1905, to September, 1930. Records obtained in 1904 by State engineer.

EXTREMES.—Maximum discharge during year, 1,790 second-feet Apr. 15 (gage height, 10.24 feet); minimum, 3 second-feet July 5-10, Sept. 16.

1905-1930: Maximum discharge, 7,530 second-feet June 6, 1909 (gage height, 19.1 feet); practically no flow during later part of several summers since 1915.

REMARKS.—Records fair. In summer practically entire flow of Weber River above station diverted for irrigation. Flow affected by storage in Echo and East Canyon Creek Reservoirs.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	233	265	319	263	319	395	834	1,360	237	17	9	4
2	229	268	327	291	335	399	834	1,330	214	13	10	5
3	219	276	295	287	344	408	846	1,270	211	6	11	6
4	206	276	268	280	348	417	870	1,220	144	5	10	11
5	203	276	315	276	365	463	882	1,640	111	3	11	16
6	197	280	295	272	360	516	978	1,580	90	3	9	38
7	178	287	303	236	365	487	1,120	1,360	60	3	9	49
8	169	283	311	213	369	463	1,320	1,390	67	3	8	62
9	187	280	319	203	377	431	1,450	1,430	60	3	4	82
10	197	283	327	193	377	426	1,570	1,380	134	3	4	64
11	213	280	331	197	382	417	1,660	1,340	257	147	11	55
12	206	254	339	193	391	413	1,720	1,230	325	55	46	43
13	197	251	331	206	445	445	1,690	1,170	344	23	162	38
14	197	254	323	226	473	468	1,730	1,110	290	9	122	26
15	200	272	315	236	506	546	1,790	1,080	74	8	64	14
16	187	280	319	254	536	669	1,460	766	44	7	54	3
17	178	303	323	311	541	666	1,200	794	37	7	47	4
18	203	295	311	303	546	650	1,050	811	33	7	41	5
19	200	287	299	291	541	700	1,340	827	33	6	37	6
20	193	261	280	315	551	722	1,050	563	37	6	9	8
21	197	247	268	348	556	786	1,060	474	44	7	7	11
22	193	233	265	382	556	912	1,270	404	62	5	6	69
23	193	254	268	311	566	1,020	1,440	348	89	4	5	118
24	197	307	268	236	603	1,080	1,550	300	54	3	4	191
25	203	323	261	254	566	846	1,520	251	41	4	4	197
26	213	348	254	265	566	882	1,530	200	30	4	4	251
27	213	335	250	295	473	936	1,550	91	20	4	6	251
28	216	331	254	299	435	852	1,580	54	20	4	8	247
29	247	331	254	295	-----	672	1,480	44	17	6	6	247
30	268	319	254	287	-----	760	1,410	57	98	6	6	254
31	261	-----	254	303	-----	804	-----	247	-----	7	6	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	268	169	206	12,700
November	348	233	285	17,000
December	339	250	294	18,100
January	382	193	268	16,500
February	603	319	455	25,300
March	1,080	395	634	39,000
April	1,790	834	1,330	79,100
May	1,640	44	843	51,800
June	344	19	110	6,550
July	147	3	12.5	769
August	162	4	23.9	1,470
September	254	3	79.2	4,710
The year	1,790	3	377	273,000

## CHALK CREEK AT COALVILLE, UTAH

LOCATION.—Staff gage in SE. ¼ sec. 8, T. 2 N., R. 5 E., at highway bridge in Coalville, one-third mile above confluence with Weber River.

DRAINAGE AREA.—253 square miles.

RECORDS AVAILABLE.—October, 1904, to December, 1905; April, 1927, to September, 1930.

EXTREMES.—Maximum discharge during year, 382 second-feet Apr. 25 (gage height, 3.32 feet); minimum not determined.

1927-1930: Maximum discharge, 696 second-feet May 4, 1929 (gage height, 4.0 feet); minimum, 4 second-feet Sept. 16 to Oct. 6, 1928.

REMARKS.—Records fair. No large diversions below station. Flow regulated by irrigation diversions above. Gage-height record and results of several discharge measurements furnished by Weber River water commissioner.

## Daily and monthly discharge, in second-feet, 1929-30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	19	19				32	228	156			
2	26	19	19				32	264	134			
3	26	17	19				34	301	134			
4	28	17	21				44	286	122			
5	26	17	22				37	260	122			
6	19	19	25				115	246	113		11	
7	22	17	25				173	204	115			
8	17	17	28				275	189	120			
9	30	17	28			• 20	267	182	115			
10	28	14	28				253	159	104			
11	28	21	29				208	150	91		18	
12	26	24	29				176	145	73			
13	28	28	28				189	134	74	21		
14	26	32	25				195	132	68			
15	26	32	22		• 20		162	148	64			• 15
16	26	32	23				124	150	55			
17	28	14	22				104	153	53			
18	27	14	22			22	99	153	48			
19	26	14	20			22	104	159	48			
20	17	14	22			24	130	173	56			
21	17	12	15			24	162	239	53		19	
22	16	12	16			28	232	204	53			
23	17	13	20			34	249	153	51			
24	17	14	20			32	294	153	45			
25	16	14	20			32	382	182	43	13		
26	16	14	21			32	298	179	35			
27	17	16	21			32	282	192	35			
28	17	17	21			41	246	179	35		17	
29	19	19	19			22	264	182	• 35			
30	19	19	17			22	235	182	• 35			
31	19		18	20		32		153				

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	30	16	22.5	1,380
November	32	12	18.3	1,090
December	29	15	22.1	1,360
January			• 20	1,230
February			• 20	1,110
March	41		23.8	1,460
April	382	32	180	10,700
May	301	132	188	11,600
June	156	35	76.2	4,530
July			• 20	1,230
August			• 18	1,110
September			• 15	893
The year	382		52.0	37,700

• Estimated.

## LOST CREEK AT DEVILS SLIDE, UTAH

LOCATION.—Water-stage recorder in SE.  $\frac{1}{4}$  sec. 19, T. 4 N., R. 4 E., one-fourth mile above confluence with Weber River and half a mile east of Devils Slide.

DRAINAGE AREA.—228 square miles.

RECORDS AVAILABLE.—April, 1921, to September, 1930, at present site; February to December, 1905, at site 150 feet above mouth of creek (published as "Lost Creek near Croyden, Utah").

EXTREMES.—Maximum discharge during year, 186 second-feet Apr. 23 (gage height, 1.73 feet); minimum, 6 second-feet Sept. 26–30.

1905, 1921–1930: Maximum discharge, about 1,390 second-feet May 11, 1923 (gage height, 4.39 feet); minimum, 6 second-feet Oct. 1–12, 1926, Sept. 26–30, 1930.

REMARKS.—Records fair. Practically all the water diverted above gage during late irrigation season. Results of several discharge measurements furnished by Weber River water commissioner.

*Daily and monthly discharge, in second-feet, 1929–30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	19	19	20	15	20	30	34	113	23	15	8	9
2.....	19	19	18	17	21	26	33	97	19	14	8	9
3.....	19	17	16	16	22	29	34	94	21	14	9	9
4.....	19	18	16	17	19	33	37	85	22	13	9	8
5.....	19	18	19	19	19	19	33	95	23	13	9	9
6.....	18	19	19	19	24	33	51	99	23	12	10	9
7.....	18	19	19	12	24	32	62	97	22	12	11	9
8.....	19	19	19	12	24	32	88	90	21	12	11	8
9.....	19	19	21	11	26	33	107	90	22	12	11	8
10.....	19	19	21	11	25	32	111	86	22	12	11	8
11.....	16	19	21	12	28	32	117	85	21	12	12	8
12.....	15	16	21	12	28	32	123	85	18	11	12	8
13.....	15	14	21	13	30	34	132	80	16	11	12	8
14.....	14	16	21	13	31	35	132	79	16	10	13	8
15.....	14	18	22	14	32	36		67	16	10	12	8
16.....	13	19	22	16	34	36	115	66	15	10	11	8
17.....	13	19	22	16	34	35		65	14	10	11	7
18.....	12	19	21	14	34	34		70	14	10	11	7
19.....	12	20	23	14	34	34	101	55	15	9	11	7
20.....	14	18	23	15	34	35	117	38	19	9	9	7
21.....	14	14	14	13	35	34	132	58	19	9	9	7
22.....	15	13	17	13	34	35	146	61	18	9	9	7
23.....	15	14	18	13	36	37	156	44	15	9	11	7
24.....	16	14	21	13	33	37	156	28	14	8	12	7
25.....	15	16	19	13	33	37	156	26	15	8	11	7
26.....	13	18	22	13	32	39	156	19	16	8	10	6
27.....	17	17	16	14	31	38	151	19	16	7	9	6
28.....	19	19	15	15	30	37	140	23	15	8	9	6
29.....	19	19	15	16	-----	36	132	24	16	8	9	6
30.....	19	19	14	17	-----	38	120	25	16	8	9	6
31.....	19	-----	16	19	-----	38	-----	25	-----	8	9	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	19	12	16.4	1,010
November.....	20	13	17.6	1,050
December.....	23	14	19.1	1,170
January.....	19	11	14.4	885
February.....	36	19	28.8	1,600
March.....	39	26	34.3	2,110
April.....	156	33	108	6,430
May.....	113	19	64.1	3,940
June.....	23	14	18.1	1,080
July.....	15	7	10.4	640
August.....	13	8	10.3	633
September.....	9	6	7.6	450
The year.....	156	6	28.9	21,000

## SOUTH FORK OF OGDEN RIVER NEAR HUNTSVILLE, UTAH

LOCATION.—Water-stage recorder in SE.  $\frac{1}{4}$  sec. 12, T. 6 N., R. 2 E.,  $\frac{1}{2}$  mile below mouth of Magpie Creek, 1 mile above heading of Huntsville Mountain Canal, and  $5\frac{1}{2}$  miles east of Huntsville.

DRAINAGE AREA.—148 square miles.

RECORDS AVAILABLE.—March, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 412 second-feet Apr. 25 (gage height, 2.52 feet); minimum daily discharge, 35 second-feet July 31, Aug. 30 to Sept. 3.

1921-1930: Maximum discharge, 1,450 second-feet May 10, 1923 (gage height, 5.4 feet); minimum, 30 second-feet Oct. 5, 1924, Aug. 30, 1926.

REMARKS.—Records good. No large diversions above gage.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	42	42	44	38	44	62	220	112	44	37	35
2	44	42	40	41	38	46	65	235	104	44	37	35
3	45	42	40	42	38	44	78	240	99	44	37	35
4	44	42	41	40	39	44	90	235	97	43	36	36
5	44	43	41	40	40	45	102	220	91	43	37	40
6	44	43	41	40	41	46	118	202	87	42	39	38
7	44	44	42	40	42	47	150	186	84	41	37	37
8	44	44	42	41	43	48	188	179	82	41	41	37
9	45	44	44	41	43	48	200	166	79	41	48	37
10	44	45	44	41	43	48	216	153	77	41	50	37
11	44	46	43	42	43	48	233	146	73	42	46	37
12	44	42	41	42	42	49	261	143	71	42	41	37
13	44	42	41	42	42	54	249	139	68	41	42	36
14	44	42	41	43	42	60	244	139	66	40	41	37
15	44	42	41	43	42	66	202	148	65	40	40	37
16	44	42	42	43	42	70	171	164	62	40	39	37
17	44	42	42	42	43	66	155	164	60	39	38	36
18	44	42	41	42	43	63	150	162	58	39	38	36
19	44	42	42	42	43	66	180	155	58	38	37	36
20	44	42	43	41	44	78	206	158	58	38	37	36
21	43	44	44	41	44	91	244	171	55	37	37	36
22	42	46	44	41	44	106	283	166	53	37	37	37
23	42	44	41	41	44	98	310	153	52	36	37	44
24	42	42	42	40	43	87	359	148	51	36	37	40
25	42	41	42	40	43	77	373	144	50	36	37	38
26	42	42	41	40	43	72	318	141	49	36	37	37
27	42	42	42	40	43	63	286	138	47	36	37	37
28	44	41	40	39	43	60	262	136	46	36	37	37
29	44	41	40	39	43	60	249	130	46	36	36	38
30	44	41	40	39	43	70	227	120	45	36	35	38
31	43	45	45	38	43	65	122	122	35	35	35	35

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	45	42	43.6	2,680
November	46	41	42.6	2,530
December	45	40	41.8	2,570
January	44	38	41.0	2,520
February	44	38	42.1	2,340
March	106	44	62.2	3,820
April	373	62	207	12,300
May	240	120	165	10,100
June	112	45	68.2	4,060
July	44	35	39.4	2,420
August	50	35	38.7	2,380
September	44	35	37.1	2,210
The year	373	35	69.1	49,900

JORDAN RIVER NEAR LEHI, UTAH

**DRAINAGE AREA.**—2,570 square miles.

RECORDS AVAILABLE.—May to December, 1904; July, 1913, to September, 1930.

**EXTREMES.**—Maximum mean daily discharge during year, 817 second-feet July 1, 2 (gage height, 5.87 feet); minimum, 51 second-feet Feb. 14.

1913-1930: Maximum mean daily discharge, 1,370 second-feet June 8, 1923 (gage height, 7.78 feet); no flow for several short periods.

REMARKS.—Records fair. Discharge Oct. 15 to Apr. 17 determined from pump records. Flow represents pumped outflow from Utah Lake and is controlled by operation of gates and pumping plant 800 feet above gage. Gage-height record furnished by W. A. Knight, water commissioner.

## Daily and monthly discharge, in second-feet, 1929-30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.	310	115	104	92	92	79	92	632	687	817	707	667
2.	314	92	100	92	92	67	92	617	684	817	727	677
3.	319	92	92	92	92	69	92	624	684	815	727	640
4.	350	92	92	92	92	68	92	630	687	815	717	654
5.	408	92	92	92	92	68	92	572	682	809	690	366
6.	412	117	92	92	92	75	92	520	682	796	687	560
7.	408	123	92	92	92	69	92	445	687	770	682	640
8.	406	104	92	92	92	55	70	365	694	750	687	637
9.	408	104	92	92	92	78	68	239	692	768	682	627
10.	406	104	92	92	92	66	92	290	692	757	682	617
11.	384	104	92	92	67	55	92	236	710	574	670	596
12.	365	115	92	92	55	61	87	251	737	500	642	564
13.	361	104	92	92	65	92	245	317	740	500	490	596
14.	359	104	92	92	51	92	264	418	737	660	299	596
15.	92	104	92	92	55	92	217	458	724	727	305	591
16.	92	104	92	92	55	92	149	543	722	747	348	593
17.	92	104	92	92	55	92	276	598	730	722	370	581
18.	92	104	92	92	55	92	276	598	747	755	560	584
19.	92	104	92	92	73	92	317	596	755	742	615	586
20.	92	104	92	92	72	92	325	588	755	737	660	564
21.	92	104	92	92	55	92	363	622	755	720	654	545
22.	92	104	92	92	55	92	460	640	747	674	640	509
23.	119	104	92	92	78	92	489	586	750	674	654	502
24.	138	104	92	92	67	92	513	615	763	704	647	416
25.	135	100	92	92	55	92	541	644	768	697	632	216
26.	138	100	92	91	55	92	608	670	783	684	654	138
27.	117	101	91	92	55	92	650	707	783	710	670	138
28.	120	100	92	92	68	92	644	747	789	727	660	138
29.	133	100	92	92	-----	92	644	742	789	717	682	137
30.	138	100	92	92	-----	92	637	747	815	684	690	138
31.	138	-----	92	92	-----	92	-----	747	-----	697	674	-----
Month							Maximum	Minimum	Mean		Run-off in acre-feet	
October							412	92	230		14, 100	
November							123	92	103		6, 130	
December							104	91	92. 6		5, 690	
January							92	91	92. 0		5, 660	
February							92	51	71. 8		3, 990	
March							92	55	82. 5		5, 070	
April							650	68	289		17, 200	
May							747	236	549		33, 800	
June							815	682	732		43, 600	
July							817	500	718		44, 100	
August							727	299	619		38, 100	
September							677	137	495		29, 500	
The year							817	51	341		247, 000	

## SALT CREEK NEAR NEPHI, UTAH

LOCATION.—Staff gage in NW.  $\frac{1}{4}$  sec. 1, T. 13 S., R. 1 E., 50 feet below tailrace of Nephi municipal power plant, 100 feet above intake of Nephi Plaster Co.'s canal,  $2\frac{1}{2}$  miles below mouth of South Fork, and  $3\frac{1}{2}$  miles east of Nephi. Gage datum lowered 1 foot Oct. 1, 1929.

DRAINAGE AREA.—95 square miles.

RECORDS AVAILABLE.—April, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, about 550 second-feet Aug. 13 (gage height, 4.4 feet); minimum, 8 second-feet Jan. 20–24, July 24–28, 31. 1925–1930: Maximum discharge, about 600 second-feet Aug. 27, 1929 (gage height, 4.65 feet); minimum, 6 second-feet Jan. 23–27, 1923.

REMARKS.—Records fair except those for days when floods occurred and discharge was estimated. A few small diversions above station.

*Daily and monthly discharge, in second-feet, 1929–30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	12	11	11	10	9	12	14	22	31	13	9	12
2.....	12	11	11	10	10	12	14	23	29	13	• 30	12
3.....	12	12	11	10	10	12	16	23	24	12	18	12
4.....	12	12	11	10	11	12	16	23	24	11	12	16
5.....	12	12	11	10	11	12	16	24	24	10	12	14
6.....	12	11	11	10	10	12	22	24	24	10	12	11
7.....	12	12	10	10	11	12	26	24	24	10	• 30	11
8.....	12	12	10	10	11	12	28	26	25	10	• 25	11
9.....	12	12	10	10	11	12	30	26	25	10	• 25	11
10.....	12	12	10	10	11	12	55	25	25	12	17	11
11.....	12	11	10	10	11	12	37	25	25	12	19	11
12.....	12	11	10	10	11	12	34	25	25	11	• 90	11
13.....	12	10	10	10	11	12	32	26	24	10	• 100	11
14.....	12	11	10	10	11	12	31	27	22	10	14	11
15.....	12	11	10	10	11	12	23	28	21	10	14	11
16.....	24	12	10	10	12	12	22	28	21	10	14	11
17.....	12	12	10	10	12	12	18	27	21	17	16	11
18.....	12	12	10	10	12	12	19	28	21	18	16	11
19.....	12	11	10	10	12	12	20	28	21	11	16	11
20.....	12	12	9	8	12	12	22	29	19	9	14	11
21.....	12	11	10	8	12	12	28	30	19	9	14	11
22.....	11	11	10	8	12	12	36	31	18	9	14	12
23.....	12	11	10	8	12	12	42	31	16	9	13	23
24.....	11	11	10	8	12	12	47	31	16	8	13	26
25.....	11	11	10	9	12	12	39	33	16	8	13	15
26.....	11	11	10	9	12	12	36	37	15	8	19	12
27.....	11	11	10	9	12	12	29	39	15	8	13	11
28.....	11	11	10	9	12	12	27	41	14	8	12	11
29.....	11	11	10	9	-----	12	25	37	14	9	12	11
30.....	11	11	10	9	-----	14	22	33	14	14	12	11
31.....	11	-----	10	9	-----	14	-----	31	-----	8	13	-----

Month	Maximum	Minimum	Mean	Run-off in acre feet
October.....	24	11	12.1	744
November.....	12	10	11.3	672
December.....	11	9	10.2	627
January.....	10	8	9.5	584
February.....	12	9	11.3	628
March.....	14	12	12.1	744
April.....	55	14	27.5	1,640
May.....	41	22	28.5	1,750
June.....	31	14	21.1	1,280
July.....	18	8	10.5	646
August.....	100	9	21.0	1,280
September.....	26	11	12.5	744
The year.....	100	8	15.6	11,300

• Estimated.



## PROVO RIVER AT FORKS, UTAH

LOCATION.—Staff gage in sec. 26, T. 5 S., R. 3 E., at Vivian Park summer resort, just above Forks and 400 feet above South Fork.

DRAINAGE AREA.—600 square miles.

RECORDS AVAILABLE.—November, 1911, to September, 1930. Records have been obtained at various points below mouth of South Fork since 1890.

EXTREMES.—Maximum discharge during year, 1,100 second-feet May 30, 31 (gage height, 4.15 feet); minimum, 183 second-feet Aug. 21, 22, 24.

1911-1930; Maximum discharge, 3,180 second-feet June 11, 1921 (gage height, 6.13 feet); minimum, 122 second-feet Sept. 18, 1924.

REMARKS.—Records fair. Station below diversions for irrigation in Heber Valley and above those in vicinity of Provo. Flow slightly regulated by small lakes at headwaters utilized as storage reservoirs. Results of several discharge measurements furnished by Utah Power & Light Co.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	273	252	320	270	270	270	294	297	870	263	200	198
2.....	266	252	312	283	270	257	283	304	658	257	205	198
3.....	289	259	304	257	270	276	290	371	536	257	221	200
4.....	281	252	304	276	270	283	297	460	452	250	227	205
5.....	273	252	312	283	270	419	300	445	427	250	227	215
6.....	266	266	312	283	276	348	304	379	443	250	215	215
7.....	259	266	312	266	263	311	333	379	553	244	215	227
8.....	266	273	312	247	270	304	371	379	605	244	215	227
9.....	281	273	320	244	263	297	395	356	694	250	215	224
10.....	273	277	312	244	270	283	431	318	614	273	215	218
11.....	266	281	312	290	263	297	476	304	544	280	221	210
12.....	266	289	312	283	263	297	481	297	544	283	232	205
13.....	266	273	312	290	276	311	493	276	536	244	375	205
14.....	259	289	312	290	283	318	510	257	468	238	315	205
15.....	252	312	312	283	290	318	485	238	460	238	254	205
16.....	242	325	312	318	304	333	395	250	371	232	241	205
17.....	248	316	312	263	304	318	341	297	356	232	230	205
18.....	248	316	304	221	304	297	304	290	333	241	235	205
19.....	248	316	320	290	322	283	290	304	318	221	230	205
20.....	242	300	304	297	322	297	276	318	304	215	192	200
21.....	248	285	273	221	348	304	276	395	276	215	183	200
22.....	248	262	273	221	419	311	311	502	276	221	183	200
23.....	248	292	289	244	536	311	357	395	263	227	188	221
24.....	248	292	281	311	365	294	419	348	263	221	183	235
25.....	255	300	273	297	315	283	562	387	257	215	188	257
26.....	270	308	320	297	311	290	493	485	257	215	192	247
27.....	255	316	281	283	311	270	435	614	250	208	195	244
28.....	255	316	281	283	270	263	395	811	257	202	195	238
29.....	248	316	273	238	-----	257	368	870	263	195	192	238
30.....	248	316	281	276	-----	276	341	1,000	263	200	192	241
31.....	255	-----	296	270	-----	318	-----	1,000	-----	200	198	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	289	242	259	15,900
November.....	325	252	288	17,100
December.....	320	273	302	18,600
January.....	318	221	272	16,700
February.....	636	263	304	16,900
March.....	419	257	299	18,400
April.....	562	276	377	22,400
May.....	1,000	238	398	24,500
June.....	870	250	424	25,200
July.....	283	195	235	14,400
August.....	375	183	218	13,400
September.....	275	198	217	12,900
The year.....	1,000	183	302	216,000

## SOUTH FORK OF PROVO RIVER AT FORKS, UTAH

LOCATION.—Staff gage in sec. 26, T. 5 S., R. 3 E., at Vivian Park summer resort, just above Forks and one fourth mile above confluence with Provo River.

DRAINAGE AREA.—30 square miles.

RECORDS AVAILABLE.—November, 1911, to September, 1930.

EXTREMES.—Maximum discharge during year, 37 second-feet on several days October to December; minimum, 20 second-feet June 10, July 31, Sept. 12, 1911-1930: Maximum discharge, 123 second-feet May 27, 1922; minimum, 14 second-feet Apr. 17, 1925.

REMARKS.—Records fair. Station below all diversions. Flow regulated by diversions above. Results of several discharge measurements furnished by Utah Power & Light Co.

## Daily and monthly discharge, in second-feet, 1929-30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	36	36	37	33	31	29	27	28	27	26	22	24
2.....	36	36	37	33	31	29	27	26	27	25	23	24
3.....	36	36	36	33	31	29	27	26	27	25	27	24
4.....	36	36	36	33	31	29	27	26	27	25	26	24
5.....	34	36	36	33	31	36	27	26	27	25	26	24
6.....	34	36	36	33	31	36	27	26	27	25	26	24
7.....	36	36	36	33	31	30	27	28	27	22	23	26
8.....	36	36	36	33	30	29	27	28	27	22	23	24
9.....	37	36	36	31	30	29	27	28	27	23	22	24
10.....	37	36	36	31	30	27	27	28	20	23	22	23
11.....	36	37	36	31	30	27	27	28	22	24	22	23
12.....	36	37	36	31	30	27	27	28	23	26	23	20
13.....	36	36	36	31	30	27	27	30	25	24	24	22
14.....	36	36	36	31	30	27	27	30	26	24	24	23
15.....	36	36	36	31	30	27	27	30	28	23	24	24
16.....	36	36	36	31	29	27	27	30	28	23	24	24
17.....	36	36	36	31	29	29	27	30	22	23	26	24
18.....	36	36	36	31	29	27	27	30	23	24	26	24
19.....	36	36	36	31	35	27	27	28	25	23	24	24
20.....	36	36	36	31	35	27	26	28	26	26	24	24
21.....	34	36	36	30	29	28	26	26	26	26	24	27
22.....	34	35	36	30	30	28	26	28	26	26	23	27
23.....	34	35	36	31	30	27	26	28	26	26	23	27
24.....	34	35	36	31	30	26	27	26	26	26	23	27
25.....	36	35	36	31	29	26	27	26	29	21	23	27
26.....	36	36	36	31	29	26	27	26	27	22	23	27
27.....	36	36	36	31	29	26	27	26	29	21	23	26
28.....	36	36	36	31	29	26	27	26	29	22	24	25
29.....	36	36	36	31	-----	26	28	26	29	22	24	26
30.....	36	36	36	31	-----	26	29	26	29	21	24	26
31.....	36	-----	36	31	-----	27	-----	26	-----	20	26	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	37	34	35.6	2,190
November.....	37	35	35.9	2,140
December.....	37	36	36.1	2,220
January.....	33	30	31.4	1,930
February.....	35	29	30.3	1,680
March.....	36	26	28.0	1,720
April.....	29	26	27.0	1,610
May.....	30	26	27.5	1,690
June.....	29	20	26.2	1,560
July.....	26	20	23.7	1,460
August.....	27	22	23.9	1,470
September.....	27	20	24.6	1,460
The year.....	37	20	29.2	21,100

## SEVIER LAKE BASIN

## SEVIER RIVER NEAR KINGSTON, UTAH

LOCATION.—Water-stage recorder in NW.  $\frac{1}{4}$  sec. 16, T. 30 S., R. 3 W., 1 mile west of Kingston and 2 miles above mouth of East Fork.

DRAINAGE AREA.—1,110 square miles.

RECORDS AVAILABLE.—June, 1914, to September, 1930.

EXTREMES.—Maximum discharge during year, about 1,000 second-feet during first estimated period in August (gage height, 3.2 feet); minimum, 17 second-feet June 29, 30 (gage height, 0.77 foot).

1914-1930: Maximum discharge, 1,460 second-feet May 21, 1922 (gage height, 4.92 feet); minimum, 11 second-feet July 4, 1924 (gage height, 0.70 foot).

REMARKS.—Records fair. Numerous diversions above station; none between gage and mouth of East Fork. Gage-height record and results of several discharge measurements furnished by Sevier River water commissioner.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	66	83	123	100	95	137	143	39	100	18	44	30
2	60	92	126		95	137	143	39	90	19	35	30
3	55	105	126		95	137	146	43	8	19	30	30
4	49	108	129		100	137	146	39	79	19		30
5	51	115	129		105	137	146	70	66	18		26
6	62	118	126	95	110	137	129	88	57	18	250	26
7	60	115	123		112	135	110	68	41	19		25
8	62	110	123		118	135	110	60	32	19		26
9	57	108	121		123	132	123	57	20	20		41
10	49	105	123		126	132	123	51	20	21		43
11	44	102	126	90	126	132	121	41	20	23	208	44
12	46	102	126		129	132	118	38	20	23		43
13	44	110	126		135	137	129	35	20	21		175
14	43	112	123		140	140	155	32	20	18		43
15	39	112	121		146	143	146	29	20	19		155
16	35	121	121	90	149	143	129	26	20	19	155	43
17	36	121	121		155	143	108	26	20	19	165	35
18	46	121	123		155	140	86	38	24	19	132	28
19	49	121			149	135	58	44	33	19	129	28
20	49	123			152	129	41	49	33	32	123	28
21	55	121	125	88	146	126	38	57	20	39	92	28
22	62	121		90	143	126	32	86	20	24	77	28
23	64	121		92	137	126	32	105	20	24	64	28
24	64	121		100	132	121	35	77	20	24	60	26
25	64	121		98	129	118	62	66	20	24	66	26
26	72	123	130	98	126	123	72	77	20	24	46	26
27	77	126		95	129	135	57	86	20	21	44	33
28	79	126		98	135	140	43	95	19	21	29	43
29	79	123		98		140	43	100	17	21	28	43
30	79	126		132	95	143	46	100	17	19	29	43
31	77		130	95		143		100		19	38	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	79	35	57.2	3,520
November	126	83	114	6,780
December			126	7,750
January			93.6	5,760
February	155	95	128	7,110
March	143	118	135	8,300
April	155	32	95.7	5,690
May	105	26	60.0	3,690
June	100	17	36.0	2,140
July	39	18	21.4	1,320
August			130	7,990
September	44	25	33.6	2,000
The year		17	85.7	62,060

## SEVIER LAKE BASIN

39

## PIUTE RESERVOIR NEAR MARYSVALE, UTAH

LOCATION.—Staff gage in NW.  $\frac{1}{4}$  sec. 3, T. 29 S., R. 3 W., at Piute Dam, 11 miles south of Marysville.

RECORDS AVAILABLE.—March, 1914, to September, 1930.

REMARKS.—Gage-height record furnished by Piute Reservoir & Irrigation Co

*Daily contents, in acre-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	17,200	11,700	19,600	29,400	36,400	44,800	50,800	43,400	35,000	25,800	8,800	12,600
2	17,000	11,900	19,800	29,600	36,600	45,200	51,000	42,700	34,600	25,000	8,900	11,500
3	16,700	12,200	20,100	29,800	36,700	45,400	51,400	42,200	34,300	24,400	9,100	10,500
4	16,500	12,200	20,500	30,200	37,100	45,500	51,700	41,500	34,000	23,400	9,500	9,600
5	16,200	12,000	20,800	30,500	37,400	45,700	51,900	40,800	33,700	22,500	10,500	8,700
6	15,900	12,200	21,200	30,600	37,700	45,900	52,100	40,300	33,400	21,500	11,700	7,870
7	15,500	12,300	21,500	31,000	37,900	46,100	52,300	40,000	33,000	20,400	12,900	7,600
8	15,200	12,500	21,900	31,300	38,100	46,400	52,700	39,600	32,700	19,700	14,000	8,140
9	14,800	12,700	22,200	31,400	38,300	46,800	52,900	39,300	32,400	19,000	15,300	8,600
10	14,500	12,900	22,500	31,800	38,400	47,200	53,100	39,100	32,100	18,400	16,400	9,000
11	14,100	13,200	22,800	31,900	38,800	47,400	53,100	39,000	31,600	17,800	17,300	8,700
12	13,800	13,500	23,100	32,100	39,100	47,600	53,300	38,800	31,100	17,300	18,300	8,320
13	13,500	13,800	23,400	32,400	39,500	47,800	53,400	38,600	30,600	17,000	18,900	8,050
14	13,200	14,200	23,700	32,700	39,800	48,100	53,300	38,400	30,200	16,000	19,600	7,200
15	12,900	14,700	24,000	32,900	40,100	48,500	52,900	38,300	29,700	15,600	20,300	6,800
16	12,600	15,200	24,300	33,200	40,500	48,900	52,500	38,000	29,200	15,400	21,000	6,480
17	12,400	15,600	24,600	33,400	40,800	49,300	52,700	37,800	29,000	15,000	21,400	6,080
18	12,200	16,000	25,000	33,700	41,200	49,500	52,100	37,700	28,600	14,700	21,900	5,680
19	12,000	16,400	25,400	34,000	41,500	49,600	51,700	37,400	28,400	14,500	22,100	5,600
20	11,900	16,700	25,600	34,200	41,800	49,800	51,400	37,100	28,200	13,900	21,200	5,680
21	11,900	17,000	26,000	34,300	42,200	50,000	50,800	36,700	28,000	13,400	20,700	5,760
22	11,800	17,200	26,600	34,500	42,700	50,200	50,200	36,400	28,000	12,700	20,700	5,840
23	11,800	17,300	26,800	34,600	43,000	50,600	49,500	36,200	27,900	12,200	20,000	5,680
24	11,700	17,600	27,000	34,800	43,400	50,600	48,700	36,100	27,900	11,600	19,400	5,520
25	11,700	17,800	27,300	35,000	43,600	50,600	47,900	35,900	27,800	11,000	18,800	5,440
26	11,600	18,000	27,600	35,100	43,900	50,800	47,000	35,800	27,600	10,400	17,900	5,360
27	11,500	18,400	27,900	35,300	44,200	50,600	46,100	35,600	27,400	9,700	17,100	5,520
28	11,400	18,800	28,200	35,400	44,500	50,600	45,400	35,400	27,300	9,500	16,200	5,840
29	11,400	19,000	28,500	35,600	-----	50,600	44,800	35,400	27,000	9,300	15,400	6,080
30	11,500	19,300	28,800	35,900	-----	50,600	44,100	35,300	26,600	9,100	14,600	6,400
31	11,600	-----	29,100	36,200	-----	50,600	-----	35,300	-----	8,900	13,700	-----

## SEVIER RIVER BELOW PIUTE DAM, NEAR MARYSVALE, UTAH

LOCATION.—Water-stage recorder in sec. 34, T. 28 S., R. 3 W., 700 yards below dam of Piute Reservoir and 11 miles south of Marysvalle.

DRAINAGE AREA.—2,440 square miles.

RECORDS AVAILABLE.—May to August, 1911; May, 1912, to September, 1930.

EXTREMES.—1911-1930: Maximum discharge, 2,800 second-feet May 23, 24, 1922 (gage height, 4.45 feet); practically no flow when reservoir gates are closed.

REMARKS.—Records fair. No diversion between gage and Piute Reservoir. Flow regulated by operation of gates in dam. Gage-height record and results of several discharge measurements furnished by Sevier River water commissioner.

## Daily and monthly discharge, in second-feet, 1929-30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	261	23	45	26	26	26	4	562	350	545	261	553
2	267	43	45	26	26	26	5	612	40?	595	261	537
3	267	120	45	26	26	26	5	645	39?	603	143	480
4	261	223	45	26	26	26	5	637	39?	679	8	449
5	280	173	45	26	26	23	5	645	40?	679	2	449
6	321	116	43	26	26	21	17	654	43?	688	11	449
7	321	100	32	26	26	20	30	480	44?	688	13	125
8	314	100	32	26	26	16	37	441	40?	670	11	1
9	314	100	30	26	26	11	85	433	36?	670	13	2
10	314	100	30	26	26	10	152	433	35?	662	26	129
11	308	104	30	26	26	10	157	441	42?	603	23	217
12	301	120	30	26	26	10	206	441	40?	496	21	280
13	294	120	30	26	26	10	248	380	39?	480	9	261
14	242	120	30	26	26	10	287	342	40?	480	6	236
15	236	62	30	26	26	10	314	342	39?	472	18	230
16	236	34	26	26	26	10	254	372	40?	441	17	223
17	230	32	26	26	26	10	287	364	39?	425	17	223
18	211	39	26	26	26	10	301	364	37?	425	54	236
19	184	65	26	26	26	13	321	402	33?	449	248	248
20	189	92	26	26	26	20	364	417	29?	512	372	264
21	189	92	26	26	26	43	425	417	25?	504	402	261
22	179	92	26	26	26	43	433	417	25?	496	394	261
23	157	92	26	26	26	74	431	410	25?	456	441	308
24	179	85	26	26	26	89	456	328	25?	456	472	314
25	173	65	26	26	26	89	464	321	28?	441	512	301
26	134	34	26	26	26	116	504	321	29?	433	496	261
27	139	6	26	26	26	143	504	342	29?	410	545	206
28	120	17	26	26	26	139	521	380	35?	364	545	195
29	57	17	26	26	26	111	553	342	41?	357	537	195
30	26	24	26	26	26	100	553	342	49?	267	537	189
31	24	---	26	26	26	13	---	342	---	267	529	---

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	321	24	217	13,300
November	223	6	80.3	4,780
December	45	26	30.9	1,900
January	26	26	26.0	1,600
February	26	26	26.0	1,440
March	143	10	41.2	2,530
April	553	4	264	15,700
May	654	321	431	26,500
June	496	254	363	21,600
July	688	267	507	31,200
August	545	2	224	13,800
September	553	1	269	16,000
The year	688	1	208	150,000

## SEVIER RIVER NEAR VERMILION, UTAH

LOCATION.—Water-stage recorder in NE  $\frac{1}{4}$  sec. 19, T. 22 S., R. 1 W., at highway bridge half a mile below Rockyford Dam, 2 miles northeast of Vermilion, and 4 miles above mouth of Lost Creek.

DRAINAGE AREA.—3,340 square miles.

RECORDS AVAILABLE.—July to September, 1912; July, 1914, to September, 1930.

EXTREMES.—1914–1930: Maximum discharge, 2,400 second-feet May 30, 1922 (gage height, about 8.1 feet); minimum, 1 or 2 second-feet (seepage only) when Rockyford gates are closed.

REMARKS.—Records fair. Entire flow usually diverted during low-water season; flow past station at such times represents seepage and return flow from canals. Flow also regulated by dams and reservoirs above. Gage-height record and results of several discharge measurements furnished by Sevier River water commissioner.

## Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	51	55	109	109	140	155	23				93	8
2.....	49	57	105	111	142	148	49			3	117	8
3.....	48	53	107	107	140	146	96				166	8
4.....	47	51	111	109	140	144	89	2			295	7
5.....	45	49	111	111	142	133	87		3		282	7
6.....	43	52	113	113	142	131	86				205	10
7.....	43	57	113	117	142	131	96	11			155	22
8.....	43	59	111	119	142	131	94	30			142	21
9.....	43	69	109		142	133	91	31			163	103
10.....	42	63	109		144	135	87	32	19		184	100
11.....	40	63	111	120	150	133	79	32	17	2	209	93
12.....	42	69	111		159	131	73	45	18		255	79
13.....	42	72	107		170	129	52	58	18		186	63
14.....	42	72	107		195	125	35	72	11		146	51
15.....	43	72	109	123	215	121	35	91			121	44
16.....	43	76	105		232	119	35	87	3			39
17.....	43	83	96		232	119	36	83			68	32
18.....	43	78	96		222	127	36	96		24		25
19.....	44	69	100		215	129	32	81	25	26	14	19
20.....	45	62	107	125	210	133	21	76	34	14	18	17
21.....	46	60	107		195	135	16	73	37	20	23	15
22.....	46	62	105		188	113	20	70	52	31	21	13
23.....	46	89	96	131	188	102	32	63	58	41	24	13
24.....	46	127	89		177	102	48	60	49	44	31	18
25.....	46	123	100		170	56	24	62	34	51	29	27
26.....	47	119	109	130	161	18		60	19	69	27	
27.....	46	117	111		157	17		44		75	27	
28.....	46	115	113		157	16	2	20		62	25	10
29.....	47	113	111	135		16		10	3	53	19	
30.....	48	111	109	133		16		2		52	13	4
31.....	54		109	135		15		2		65	9	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	54	40	45.1	2,770
November.....	127	49	77.2	4,590
December.....	113	89	107	6,580
January.....		107	123	7,560
February.....	232	140	172	9,550
March.....		15	105	6,460
April.....	96		46.1	2,740
May.....	96		42.0	2,580
June.....	58		14.7	875
July.....	75		21.4	1,320
August.....	295	9	103	6,330
September.....	103	4	29.5	1,760
The year.....	295		73.3	53,100

## SEVIER RIVER BELOW SAN PITCH RIVER, NEAR GUNNISON, UTAH

LOCATION.—Water-stage recorder in NE.  $\frac{1}{4}$  sec. 14, T. 19 S., R. 1 W., 1,000 feet below mouth of San Pitch River and 3 miles west of Gunnison.

DRAINAGE AREA.—4,880 square miles.

RECORDS AVAILABLE.—October, 1917, to September, 1930.

EXTREMES.—Maximum discharge during year, 511 second-feet Aug. 5 (gage height, 2.59 feet); minimum, 42 second-feet July 3.

1917-1930: Maximum discharge, 2,620 second-feet June 1, 1922 (gage height, 5.32 feet); minimum, 31 second-feet July 7, 1928.

REMARKS.—Records fair. Most of flow diverted above station during irrigation season. Flow regulated by operation of reservoirs and numerous irrigation diversions above. Gage-height record and results of several discharge measurements furnished by Sevier River water commissioner.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1-----	161	180	219	*200	250	269	*350	87	133	59	135	73
2-----	163	183	216		250	263	*300	80	126	56	191	69
3-----	161		213		247	256	275	96	109	64	231	66
4-----	158		213		*246	250	285	96	104	48	398	66
5-----	163		228	188	*244	242	302	107	89	48	463	64
6-----	161		231	191	*242	247	292	118	84	46	430	60
7-----	161		216		240	237	282	123	84	46	398	240
8-----	158		202	*190	240	234	250	142	77	48	370	374
9-----	153		210		240	228	263	151	75	49	350	247
10-----	153	*200	225		247	222	263	148	77	68	326	222
11-----	151		234	188	259	222	276	140	89	134	336	204
12-----	151		234		282	225	289	137	101	129	418	196
13-----	148		231		302	231	259	129	104	107	471	185
14-----	148		228		329	225	207	148	82	96	388	173
15-----	151		225		367	210	175	151	77	94	256	161
16-----	153		225		388	210	185	183	99	71	148	145
17-----	156	228	219		409	210	166	178	96	82	123	140
18-----	156	228	222		398	207	145	170	99	121	115	140
19-----	161	225	*223		384	207	126	178	118	112	115	132
20-----	158	219	*224		374	207	123	185	126	104	115	123
21-----	156	202	225	*200	363	202		222	132	89	107	118
22-----	163	202			356	202		250	132	82	89	126
23-----	168	219			346	196		228	137	77	75	158
24-----	170	222			346	191	*140	196	137	77	107	145
25-----	175	247	*210		322	194		207	112	87	112	166
26-----	175	253			302	185		210	94	82	109	170
27-----	178	243			289	163	156	196	84	87	99	175
28-----	175	240	191		279	148	151	183	77	123	99	173
29-----	180	222	*195			132	132	161	68	121	89	175
30-----	183	222	*200			121	109	121	62	121	82	170
31-----	183		207			204		126		140	73	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October-----	183	148	162	9,960
November-----			211	12,600
December-----			217	13,300
January-----			198	12,200
February-----	409	240	305	16,900
March-----	269	121	211	13,000
April-----	350	109	207	12,300
May-----	250	80	156	9,590
June-----	137	62	99.5	5,920
July-----	140	46	86.1	5,290
August-----	471	73	220	13,500
September-----	374	60	155	9,220
The year-----	471	46	185	134,000

\* Estimated.

## SEVIER BRIDGE RESERVOIR NEAR JUAB, UTAH

LOCATION.—Staff gage in NW.  $\frac{1}{4}$  sec. 1, T. 17 S., R. 2 W., at dam of Consolidated Sevier Bridge Reservoir Co., 13 miles southwest of Juab.

RECORDS AVAILABLE.—January, 1914, to September, 1930.

REMARKS.—Gage-height record furnished by Consolidated Sevier Bridge Reservoir Co.

*Daily contents, in acre-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20,100	14,100	26,300	41,200	55,000	72,100	84,900	75,000	53,400	36,900	13,800	20,800
2	19,800	13,900	26,800	41,700	55,600	72,700	85,400	73,500	53,400	35,700	13,400	20,500
3	19,400	13,700	27,100	42,200	56,100	73,300	85,800	72,400	53,400	34,500	13,300	20,400
4	18,900	13,500	27,600	42,500	56,700	73,800	86,300	71,800	53,400	33,000	13,100	19,900
5	18,500	13,300	28,000	43,100	57,200	74,400	86,600	71,600	53,400	31,400	12,400	19,300
6	18,100	13,100	28,500	43,500	57,700	75,000	86,800	71,300	53,300	30,200	12,000	18,800
7	17,700	13,000	29,100	43,900	58,200	75,200	87,000	70,800	52,900	28,700	11,600	18,500
8	17,300	13,500	29,500	44,400	58,500	75,800	87,100	70,100	52,700	27,500	11,200	18,200
9	16,900	14,200	30,000	44,800	59,000	76,300	87,500	69,400	52,500	26,300	10,600	19,000
10	16,500	14,900	30,500	45,000	59,400	76,800	87,500	69,100	52,300	25,200	10,100	19,000
11	16,000	15,500	31,100	45,300	59,900	77,100	87,500	69,100	52,100	24,400	10,500	18,800
12	15,600	16,000	31,500	45,700	60,400	77,600	87,600	69,100	51,700	23,700	10,100	18,900
13	14,900	16,600	32,000	46,100	60,900	78,200	87,600	68,600	51,400	22,800	10,100	19,100
14	14,200	17,100	32,600	46,700	61,600	78,600	87,500	67,800	51,200	22,000	10,200	19,200
15	13,500	17,600	33,000	47,300	62,100	79,100	87,300	66,800	50,700	21,000	10,000	19,400
16	12,700	18,200	33,500	47,700	62,900	79,500	87,100	65,600	50,000	20,400	10,300	19,400
17	11,800	18,700	34,100	48,300	63,700	80,000	86,800	65,000	49,500	19,600	10,300	19,400
18	11,200	19,300	34,600	48,800	64,400	80,400	86,500	64,200	49,100	19,000	10,100	19,700
19	10,700	19,900	35,100	49,200	65,200	80,900	86,200	63,400	48,300	18,800	10,300	19,900
20	11,000	20,400	35,700	49,400	66,000	81,300	85,700	62,500	46,800	18,800	10,400	20,100
21	11,600	21,000	36,100	49,800	66,800	81,800	85,200	61,500	46,200	18,700	10,200	20,400
22	11,900	21,500	36,600	50,100	67,800	82,100	84,600	60,400	45,400	18,700	10,300	20,500
23	12,500	22,000	37,100	50,300	68,400	82,400	83,800	59,400	44,600	18,700	10,300	20,700
24	13,000	22,400	37,500	50,900	69,100	82,700	83,000	58,400	43,700	18,600	10,300	20,800
25	13,400	22,900	37,900	51,500	69,700	83,000	82,400	57,800	42,900	18,500	10,200	21,200
26	13,600	23,500	38,400	52,100	70,300	83,300	81,800	57,200	42,000	18,500	10,200	21,300
27	13,700	24,100	38,900	52,600	71,000	83,600	80,600	56,800	41,000	18,200	10,200	21,400
28	13,600	24,600	39,400	53,000	71,700	83,900	79,400	56,200	40,100	18,100	10,200	21,500
29	13,400	25,200	39,800	53,500	-----	84,100	77,900	55,000	38,900	17,800	10,100	21,600
30	13,800	25,800	40,300	54,000	-----	84,300	76,400	54,200	37,700	17,400	10,100	21,400
31	14,300	-----	40,700	54,500	-----	84,600	-----	53,300	-----	17,000	10,100	-----



## SEVIER RIVER NEAR JUAB, UTAH

LOCATION.—Water-stage recorder in NE.  $\frac{1}{4}$  sec. 2, T. 17 S., R. 2 W., 1,600 feet downstream from Sevier Bridge Dam and 13 miles southwest of Juab.

DRAINAGE AREA.—5,120 square miles.

RECORDS AVAILABLE.—September, 1911, to September, 1930.

EXTREMES.—1911-1930: Maximum discharge, 2,140 second-feet June 2, 1922 (gage height, 8.50 feet); practically no flow when reservoir gates are closed.

REMARKS.—Records good. No diversions between this station and that near Gunnison. Flow regulated by gates in Sevier Bridge Dam. Gage-height record and results of several discharge measurements furnished by Sevier River water commissioner.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	278	286						820	153	527	375	183
2	278	286					2	707	146	624	396	183
3	296	288						351	126	765	388	211
4	336	288					71	319	126	845	343	299
5	334	291					123	319	153	766	270	319
6	331	291					142	418	267	714	235	264
7	331	148					159	486	278	742	235	232
8	334						159	444	220	707	238	201
9	334						189	341	168	679	201	177
10	334						220	256	148	610	72	177
11	334						220	256	151	518	9	171
12	383						241	366	214	547	9	142
13	446						261	483	299	593	9	142
14	455						261	527	319	593	9	137
15	502						261	624	319	550	9	159
16	480		2	2	2	2	275	672	319	531	9	172
17	386						288	638	381	410	9	94
18	383						288	614	432	253	10	69
19	272						312	607	412	204	32	69
20	54	2					329	686	554	208	115	69
21	6						353	770	505	171	217	69
22	6						444	756	505	137	267	69
23	6						476	756	505	139	278	69
24	6						495	756	505	142	278	94
25	59						495	544	505	142	278	118
26	142						593	511	533	165	247	142
27	195						710	446	593	189	201	165
28	286						877	531	651	264	201	165
29	163						924	617	679	334	223	214
30	49						866	614	540	351	267	258
31	176							360		351	238	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	502	6	257	15,800
November	291		64.1	3,810
December			2	123
January			2	123
February			2	111
March			2	123
April	924		335	19,900
May	820	256	536	33,000
June	679	126	357	21,200
July	845	137	444	27,300
August	396	9	183	11,300
September	319	69	161	9,580
The year	924		197	142,000

\* Estimated.

## EAST FORK OF SEVIER RIVER NEAR KINGSTON, UTAH

LOCATION.—Water-stage recorder in SW.  $\frac{1}{4}$  sec. 13, T. 30 S., R. 3 W., 1 mile below highway bridge and 2 miles east of Kingston.

DRAINAGE AREA.—1,260 square miles.

RECORDS AVAILABLE.—April, 1914, to September, 1930. Records obtained  $1\frac{1}{2}$  miles above Rockyford Bridge, March, 1913, to April, 1914; also three-fourths mile north of Kingston, May to September, 1912.

EXTREMES.—1913–1930: Maximum discharge, about 2,000 second-feet Aug. 26, 1929; minimum, 8 second-feet Sept. 19–21, 1913.

REMARKS.—Records fair. Station above all diversions in vicinity of Kingston. Flow regulated at Otter Creek Reservoir, 8 miles above. Gage-height record and results of several discharge measurements furnished by Sevier River water commissioner.

## Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	15	19			* 33	35	33	194	177	166	27
2	17	16	18			* 33	34	135	194	177	169	27
3	17	17	20			33	34	145	194	177	172	28
4	17	17	20			34	35	172	194	177	169	29
5	18	17	20			33	35	194	194	177	166	29
6	21	17	20			33	37	200	194	177	180	32
7	22	17	20			34	41	197	194	177	183	36
8	26	17	20			34	92	197	191	177	186	31
9	26	16	18			34	117	200	188	177	188	30
10	21	16	18		22	33	117	203	183	175	191	30
11	20	17	18			33	128	200	180	175	194	30
12	20	17	18			33	80	206	180	178	191	30
13	18	23	17			34	102	206	177	175	191	28
14	18	25	17			34	55	213	177	175	91	28
15	18	22	17			35	36	210	177	175	28	29
16	18	19	17	* 15		35	44	213	180	178	28	31
17	17	18	17		33	35	44	210	183	178	28	33
18	17	18	17			35	44	206	186	178	28	75
19	17	20	17			35	44	206	188	174	27	203
20	16	21	17			35	47	206	188	177	27	200
21	16	23	17			36	52	206	186	171	27	206
22	15	44				37	43	200	191	178	27	210
23	14	51				35	35	200	194	175	24	216
24	13	51				35	28	194	194	173	20	216
25	13	72			33	35	22	194	191	173	21	213
26	13	42	* 16			36	43	194	191	173	17	213
27	12	26				36	138	194	191	177	16	213
28	12	24				36	148	191	186	177	17	210
29	12	22				36	148	191	186	180	27	210
30	13	14				35	54	191	180	180	28	210
31	14					35		191		177	28	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	26	12	17.1	1,050
November	72	14	24.4	1,450
December			17.5	1,080
January			* 15	922
February			* 25	1,390
March	37	33	34.5	2,120
April	148	22	63.7	3,790
May	213	33	190	11,700
June	194	177	188	11,200
July	197	177	183	11,300
August	194	16	92.1	5,660
September	216	27	103	6,130
The year	216		79.7	57,800

\* Estimated.

## ROCKYFORD CANAL NEAR VERMILION, UTAH

LOCATION.—Water-stage recorder in sec. 19, T. 22 S., R. 1 W., 370 feet below head of canal and 2 miles northeast of Vermilion.

RECORDS AVAILABLE.—July, 1914, to September, 1930.

REMARKS.—Records fair. Gage is a short distance below wasteway that returns surplus water to Sevier River. Flow regulated by head gates and wasteway. This canal diverts from Rockyford Reservoir on Sevier River at Vermilion. Flow is dependent on water stored in reservoir, seepage, and return waters below Richfield. Water used for irrigation north of Vermilion. Gage-height record and results of discharge measurements furnished by Sevier River water commissioner.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	47	24	a 20		19	19	77	73	78		73
2	49	47	24	20	a 20	19	30	77	69	72		72
3	49	47	23			19	30	77	62	63		64
4	48	48	22			20	31	70	63	63	0	64
5	48	48	22	a 20	20	24	31	68	71	79		70
6	47	46				24	31	68	73	86		76
7	46	47				24	34	54	73	89		60
8	46	47	a 22	20	a 18	24	38	28	70	91		56
9	46	47				24	38	29	71	97	3	55
10	44	46				24	38	30	78	101	7	53
11	44	46	22	a 21		24	38	31	91	100	5	54
12	42	46			16	24	48	42	97	99	5	54
13	42	46				24	62	53	92	99	19	54
14	42	45	a 22			24	62	56	89	95	36	54
15	42	45		22	a 17	24	63	79	89	96	45	53
16	43	45				24	64	78	89	98	46	46
17	43	45	21			24	64	81	89	99	47	55
18	44	44	21			24	66	85	89	93	48	65
19	44	44		a 21	18	25	66	70	81	88	58	78
20	45	44			18	14	64	61	81	85	57	78
21	46	44	a 21		19		64	71	88	76	63	78
22	47	44			19	a 8	53	72	81	64	64	78
23	47	34		20	19	13	78	62	52	72	72	73
24	45	24			19	8	76	78	38	47	85	73
25	47	24			19	8	78	72	39	48	86	59
26	47	24		a 20	19	9	85	66	45	45	86	59
27	47	24			19	9	82	66	71	45	85	59
28	47	24	a 20		19	9	81	71	71	45	85	57
29	47	24		20		11	81	75	71	45	69	54
30	47	24		a 20		14	79	72	71	45	81	50
31	47			a 20		14		71		30	69	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	50	42	45.7	2,810
November	48	24	40.3	2,400
December			21.5	1,320
January			20.5	1,260
February			18.4	1,020
March	25		18.0	1,110
April	85	13	53.6	3,190
May	85	28	64.7	3,980
June	97	38	74.2	4,420
July	101	30	74.6	4,590
August	86	0	39.4	2,420
September	78	46	62.6	3,720
The year	101	0	44.5	32,200

a Estimated.

## BEAVER RIVER BASIN

## BEAVER RIVER NEAR BEAVER, UTAH

LOCATION.—Water-stage recorder in SE.  $\frac{1}{4}$  sec. 18, T. 29 S., R. 6 W., one-fourth mile above city diversion dam at mouth of canyon and  $4\frac{1}{2}$  miles east of Beaver.

DRAINAGE AREA.—82 square miles.

RECORDS AVAILABLE.—June to September, 1906; March, 1914, to September, 1930.

EXTREMES.—Maximum discharge during year, 416 second-feet May 26 (gage height, 5.43 feet).

1914-1930: Maximum discharge, 785 second-feet May 25, 1922 (gage height, 6.31 feet); minimum, 7 second-feet Sept. 27, 1924.

REMARKS.—Records fair. No irrigation diversions above station. Water diverted by Beaver River Power Co. but returned to stream several miles above station. Flow slightly regulated by operation of power plant and storage in Kents Lake.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Jul.	Aug.	Sept.
1.....	28	26				20	26	109	168	58	26	28
2.....	28	27				23	26	129	144	57	30	27
3.....	28	24				20	27	116	131	57	31	27
4.....	27	25				19	30	106	134	55	28	28
5.....	26	26	24		20	20	43	98	144	54	28	27
6.....	24	26				19	62	91	150	57	32	28
7.....	26	27					78	88	169	55	32	38
8.....	26	28	23				84	81	157	55	38	31
9.....	26	26	23		20		88	78	148	55	40	28
10.....	27	26	26		21		87	72	142	57	38	28
11.....	28	25	25		21	22	77	72	136	56	37	27
12.....	26	24	24		20		69	72	132	50	38	28
13.....	26		24		19		67	78	120	39	38	28
14.....	27		24		18		62	111	109	36	44	27
15.....	26	25	22		17		62	142	100	35	36	28
16.....	28		24	20	19	24	57	131	91	45	35	28
17.....	28	26	22		18	24	57	121	84	39	33	27
18.....	28	26	22		19	23	66	123	88	36	31	27
19.....	27	25	24		20	24	83	142	84	37	30	26
20.....	28		24		20	22	108	204	78	34	30	26
21.....	26				20	21	132	262	77	33	33	26
22.....	27				19	22	152	248	75	33	34	27
23.....	26				20	24	179	216	71	32	34	28
24.....	23					26	259	229	67	31	33	28
25.....	24	24				25	224	262	67	31	34	28
26.....	26		22		20	30	191	298	67	29	34	29
27.....	25					27	168	301	65	26	32	26
28.....	25					26	152	301	63	26	29	26
29.....	26					26	131	308	62	28	27	26
30.....	26					28	111	251	60	27	28	29
31.....	24					27		208		26	28	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	28	23	26.3	1,620
November.....	27		25.0	1,490
December.....			23.1	1,420
January.....			20	1,230
February.....			19.7	1,090
March.....	30		23.2	1,430
April.....	259	26	97.6	5,870
May.....	308	72	163	10,000
June.....	168	60	101	6,310
July.....	58	26	41.6	2,560
August.....	44	26	32.9	2,020
September.....	38	26	27.8	1,650
The year.....	308		51.7	36,700

## BEAVER RIVER AT ADAMSVILLE, UTAH

LOCATION.—Water-stage recorder in S. ½ sec. 30, T. 29 S., R. 8 W., 100 yards below highway bridge on road from Milford to Beaver, one-fourth mile above mouth of Indian Creek, and three-fourths mile south of Adamsville.

DRAINAGE AREA.—272 square miles.

RECORDS AVAILABLE.—December, 1913, to September, 1930.

EXTREMES.—Maximum discharge during year, 171 second-feet Feb. 19 (gage height, 2.78 feet); minimum, 1 second-foot July 8-9.

1913-1930: Maximum discharge, 796 second-feet May 23, 1920 (gage height, 4.85 feet); practically no flow for parts of several years.

REMARKS.—Records fair. No diversions between station and storage reservoir of Beaver County Irrigation Co. Several ditches above station supply Adamsville and Beaver districts. Flow practically all diverted during irrigation season.

## Daily and monthly discharge, in second-feet, 1929-30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	27	48	a 50	48	45	43	4	52	4	a 15	6
2	14	34	49			50	34	4	45	4	12	7
3	14	42	46			51	30	4	28	3	41	10
4	14	41	49			50	28	a 6	18	2	106	10
5	13	41	51			45	27	a 8	16	3	50	9
6	13	39	49	45	46	43	34	a 10	13	2	35	9
7	14	43	50		50	41	45	11	16	2	28	13
8	14	49	50		53	40	50	13	16	1	34	12
9	14	49	52		54	34	52	11	18	1	37	11
10	14	50	51		54	32	53	13	16	2	a 39	10
11	14	50	50		57	30	63	10	14	4	a 39	9
12	15	46	49		60	29	59	8	15	6	a 39	9
13	14	40	48		63	29	53	8	13	6	38	8
14	14	41	46		69	30	42	8	9	4	48	8
15	14	45	45		81	31	33	7	10	4	29	8
16	14	51	46	a 45	91	35	29	7	10	4	23	8
17	15	52	46		92	36	25	8	8	9	24	9
18	15	49	44		98	31	23	8	10	11	24	8
19	14	40	52		111	29	19	8	9	8	19	9
20	15	42	51		100	26	14	10	12	a 8	16	8
21	16	40	49		92	27	16	45	a 9	a 7	16	8
22	16	41	48		76	26	15	74		a 7	13	8
23	16	48	48		76	26	20	50		6	11	9
24	16	45	48		a 65	27	44	57		6	16	10
25	17	45	45		a 55	26	50	67		a 5	15	11
26	16	49	44		50	31	a 40	97	6	4	18	12
27	14	50	46		48	30	a 25	111	4	3	14	12
28	16	50	50		48	29	a 15	98	4	a 3	11	11
29	21	53	51			29	a 10	91	4	a 3	8	10
30	28	49	51			26	a 5	96	4	10	8	12
31	28		49			44		64		23	6	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	28	13	15.6	959
November	53	27	44.7	2,660
December	52	44	48.4	2,980
January			45.7	2,810
February	111		65.5	3,640
March	51	26	34.1	2,100
April	63	5	33.2	1,980
May	111	4	32.8	2,020
June	52	4	13.8	821
July	23	1	5.3	326
August	106	6	26.8	1,650
September	13	6	9.5	565
The year	111	1	31.1	22,500

a Estimated.

## BEAVER RIVER AT ROCKYFORD DAM, NEAR MINERSVILLE, UTAH

LOCATION.—Staff gage in NW.  $\frac{1}{4}$  sec. 11, T. 30 S., R. 9 W., half a mile below Rockyford Dam and 4 miles east of Minersville.

DRAINAGE AREA.—512 square miles.

RECORDS AVAILABLE.—December, 1913, to September, 1930.

EXTREMES.—1913–1930: Maximum discharge, 727 second-feet June 10, 1921 (gage height, 3.53 feet); minimum (estimated), 0.3 second-foot Mar. 19, 20, 1914.

REMARKS.—Records good. No diversions between dam and gage. Flow regulated by operation of gates at Rockyford Dam. Gage-height record furnished by Beaver County Irrigation Co.

*Daily and monthly discharge, in second-feet, 1929–30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	17	11	7	7	7	11	13	120	115	69	44	74
2.....	17	10	7	7	7	11	13	120	124	80	29	61
3.....	17	8	7	7	7	11	13	121	124	88	29	56
4.....	17	8	7	7	7	12	13	118	124	88	27	56
5.....	17	8	7	7	7	12	13	113	122	88	20	56
6.....	15	7	7	7	7	13	14	107	110	88	20	56
7.....	15	7	7	7	7	13	14	101	98	92	21	56
8.....	15	7	7	7	7	13	14	82	98	107	21	56
9.....	15	7	7	7	7	13	15	77	97	116	19	55
10.....	15	7	7	7	7	13	15	66	82	124	19	55
11.....	12	7	7	7	8	13	16	66	80	124	19	52
12.....	12	7	7	7	8	13	16	66	76	124	20	47
13.....	12	7	7	7	9	13	17	66	76	119	20	46
14.....	10	7	7	7	9	13	17	66	57	114	22	46
15.....	10	7	7	7	9	13	34	66	46	105	33	46
16.....	10	7	7	7	9	13	43	66	46	102	33	46
17.....	10	7	7	7	9	13	43	66	46	102	33	46
18.....	10	7	7	7	10	13	43	66	46	102	40	46
19.....	10	7	7	7	10	13	43	66	46	102	72	32
20.....	10	7	7	7	11	13	43	66	46	92	77	8
21.....	10	7	7	7	11	13	49	66	46	86	85	8
22.....	10	7	7	7	11	13	80	66	46	84	84	8
23.....	10	7	7	7	11	13	80	67	51	73	87	8
24.....	10	7	7	7	11	13	86	72	53	71	88	8
25.....	10	7	7	7	11	13	98	72	53	68	91	8
26.....	10	7	7	7	11	13	98	74	53	60	91	8
27.....	10	7	7	7	11	13	98	102	53	60	91	8
28.....	11	7	7	7	11	13	106	114	55	60	85	8
29.....	11	7	7	7	7	13	113	114	62	59	76	8
30.....	11	7	7	7	7	13	116	114	62	56	76	8
31.....	11	7	7	7	7	13	114	114	56	76	76	8

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	17	10	12.3	756
November.....	11	7	7.3	434
December.....	7	7	7.0	430
January.....	7	7	7.0	430
February.....	11	7	8.9	494
March.....	13	11	12.7	781
April.....	116	13	45.9	2,730
May.....	121	66	86.8	5,280
June.....	124	46	73.1	4,350
July.....	124	56	89.0	5,470
August.....	91	19	49.9	3,070
September.....	74	8	35.9	2,140
The year.....	124	7	36.4	26,400

## SALTON SINK BASIN

SOUTHERN PACIFIC CO.'S DITCH NEAR WHITEWATER, CALIF.

LOCATION.—Water-stage recorder in NW.  $\frac{1}{4}$  sec. 33, T. 3 S., R. 3 E., 200 feet below intake and  $3\frac{1}{2}$  miles southwest of Whitewater.

RECORDS AVAILABLE.—July, 1921, to September, 1927; October, 1929, to September, 1930.

REMARKS.—Record of daily discharge furnished by Southern Sierras Power Co. Ditch diverts all low-water flow of Snow Creek. No record available for Snow Creek for year ending Sept. 30, 1930.

*Daily and monthly discharge, in second-feet, 1929-'30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	4.0	3.4	3.6	4.1	5.7	7.1	13.8	14.0	12.7	9.1	7.7	4.5
2.....	4.0	3.4	3.6	4.1	5.7	7.7	12.9	15.9	12.7	9.1	7.1	4.5
3.....	4.0	3.4	3.6	4.1	5.9	8.7	12.1	16.8	12.5	8.9	6.5	4.5
4.....	4.0	3.4	3.6	4.1	5.7	11.0	11.9	18.6	12.5	8.7	6.3	4.5
5.....	3.8	3.4	3.6	4.1	5.5	25	12.1	15.6	12.5	8.3	6.1	4.5
6.....	3.8	3.4	3.8	4.5	5.7	17.8	12.7	14.7	12.7	8.3	6.1	4.5
7.....	3.6	3.6	3.8	4.7	6.3	14.0	14.7	14.5	14.3	8.1	6.3	4.7
8.....	3.6	3.6	4.0	4.4	6.5	12.3	15.6	14.0	13.8	8.1	6.5	4.7
9.....	3.6	3.6	4.0	4.4	6.5	11.0	15.2	13.8	13.3	8.1	6.3	4.7
10.....	3.6	3.6	4.0	5.3	6.3	10.1	14.3	13.6	13.3	7.9	6.1	4.7
11.....	3.4	3.4	4.0	5.3	6.1	9.5	13.6	14.0	13.1	7.7	5.9	4.7
12.....	3.4	3.4	4.0	6.5	5.9	9.1	13.3	14.5	13.3	7.7	5.9	4.7
13.....	3.4	3.6	4.0	6.5	5.9	8.9	13.8	14.5	13.3	8.1	5.7	4.7
14.....	3.4	3.6	4.0	6.5	6.1	8.9	13.1	14.7	13.1	7.9	5.7	4.5
15.....	3.4	3.6	4.0	8.0	6.1	11.2	12.5	14.5	12.9	7.7	5.7	4.5
16.....	3.4	3.4	4.0	8.9	6.3	12.5	11.9	14.2	12.5	7.9	5.7	4.5
17.....	3.4	3.2	4.0	7.9	6.1	12.5	11.6	13.3	12.3	7.7	5.5	4.5
18.....	3.4	3.2	4.0	7.9	6.1	11.2	11.4	13.3	12.1	7.5	5.5	4.5
19.....	3.4	3.2	4.0	7.1	6.3	10.6	11.9	13.8	11.4	7.5	5.5	4.5
20.....	3.4	3.2	4.0	6.5	6.3	10.6	12.3	14.5	10.8	7.5	5.5	4.5
21.....	3.4	3.2	4.0	6.5	6.7	11.0	12.9	14.7	10.4	7.1	5.5	4.5
22.....	3.4	3.2	4.0	5.9	7.1	11.9	14.0	14.9	10.1	7.1	5.5	4.7
23.....	3.4	3.4	4.0	5.5	21	12.3	14.7	14.3	10.1	7.1	5.5	4.7
24.....	3.4	3.4	4.0	5.3	12.3	13.1	14.7	14.3	9.7	7.1	5.5	4.7
25.....	3.4	3.4	4.0	5.3	9.7	13.6	13.6	14.0	9.7	7.1	5.7	4.7
26.....	3.4	3.6	4.0	5.5	8.5	14.0	12.9	14.0	9.5	6.7	5.3	4.5
27.....	3.4	3.6	4.0	9.5	8.1	13.3	12.5	14.0	9.3	6.5	5.1	4.5
28.....	3.6	3.4	4.0	8.5	7.5	12.5	11.9	13.8	9.3	6.5	5.1	4.5
29.....	3.4	3.4	4.2	7.1	-----	12.1	11.6	13.8	9.3	6.3	5.1	4.5
30.....	3.6	3.6	4.2	6.3	-----	12.5	12.9	13.6	9.3	6.5	5.1	4.7
31.....	3.6	-----	4.2	5.9	-----	15.4	-----	12.9	-----	6.7	5.1	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	4.0	3.4	3.55	218
November.....	3.6	3.2	3.43	204
December.....	4.2	3.6	3.94	242
January.....	9.5	4.1	6.01	370
February.....	21	5.5	7.21	400
March.....	25	7.1	12.0	738
April.....	15.6	11.4	13.1	780
May.....	18.6	12.9	14.4	885
June.....	14.3	9.3	11.7	696
July.....	9.1	6.3	7.63	469
August.....	7.7	5.1	5.81	357
September.....	4.7	4.5	4.58	273
The year.....	25	3.2	7.78	5,630

## FALIS CREEK NEAR WHITEWATER, CALIF.

LOCATION.—Water-stage recorder in NE.  $\frac{1}{4}$  sec. 33, T. 3 S., R. 3 E.,  $\frac{3}{4}$  miles southwest of Whitewater.

RECORDS AVAILABLE.—September, 1922, to September, 1930.

REMARKS.—No diversions. Record of daily discharge furnished by Southern Sierras Power Co.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	0.9	0.8	0.9	1.1	1.3	2.0	2.3	2.1	1.5	1.2	1.0
2	.9	.9	.8	.9	1.2	1.3	1.9	3.3	2.1	1.4	1.4	1.0
3	.9	.9	.8	.9	1.2	1.3	1.8	3.4	2.0	1.4	1.2	1.0
4	.9	.8	.8	.8	1.2	1.5	1.7	2.9	2.0	1.3	1.2	1.0
5	.9	.8	.8	.8	1.2	2.2	1.7	2.3	2.1	1.3	1.2	1.0
6	.9	.8	.8	.8	1.2	2.2	1.8	2.2	2.1	1.4	1.2	1.0
7	.8	.8	.8	1.0	1.2	1.9	2.1	2.1	2.1	1.4	1.2	1.1
8	.8	.8	1.0	1.0	1.2	1.7	2.5	2.1	2.0	1.4	1.3	1.1
9	.8	.8	1.0	1.0	1.2	1.6	2.5	1.9	1.9	1.3	1.2	1.1
10	.8	.9	1.0	1.2	1.2	1.5	2.2	1.9	2.0	1.3	1.2	1.1
11	.8	.9	1.0	1.2	1.2	1.4	2.0	1.9	1.9	1.2	1.1	1.1
12	.8	.9	1.0	1.1	1.1	1.4	1.9	1.9	2.0	1.2	1.1	1.1
13	.8	.9	1.0	1.1	1.1	1.3	1.9	2.1	2.0	1.2	1.1	1.1
14	.8	.9	1.0	1.1	1.1	1.3	1.8	2.2	1.8	1.2	1.1	1.1
15	.8	.9	1.0	1.1	1.1	1.7	1.7	2.2	2.2	1.2	1.1	1.1
16	.8	.9	1.0	1.1	1.2	1.9	1.6	2.1	2.1	1.2	1.1	1.1
17	.8	.9	1.0	1.1	1.2	1.9	1.6	2.1	2.0	1.2	1.1	1.0
18	.8	.9	1.0	1.4	1.1	1.8	1.5	2.0	1.9	1.1	1.1	1.0
19	.8	.9	1.0	1.3	1.1	1.8	1.6	2.2	1.9	1.1	1.1	1.0
20	.8	.9	1.0	1.2	1.1	1.7	1.6	2.5	1.8	1.1	1.0	1.0
21	.8	.9	1.0	1.2	1.2	1.7	1.9	2.8	1.8	1.1	1.1	1.0
22	.8	.9	.9	1.2	1.2	1.9	2.2	2.6	1.7	1.1	1.1	1.0
23	.8	.9	.9	1.1	3.7	1.9	2.2	2.2	1.6	1.1	1.1	1.0
24	.8	.9	1.1	2.2	2.0	2.2	2.2	2.2	1.6	1.0	1.1	1.0
25	.8	.9	.9	1.1	1.8	2.2	2.0	2.2	1.6	1.0	1.1	1.0
26	.8	.9	.9	1.1	1.6	2.2	1.9	2.2	1.6	1.1	1.1	1.0
27	.9	.9	.9	1.6	1.5	2.1	1.8	2.2	1.6	1.1	1.0	1.1
28	.9	.9	.9	1.6	1.4	1.9	1.7	2.2	1.6	1.1	1.0	1.1
29	.9	.9	.9	1.3	1.9	1.9	1.6	2.2	1.6	1.1	.9	1.1
30	.9	.9	.9	1.2	1.9	1.9	2.2	2.2	1.5	1.1	1.0	1.1
31	.9	1.2	1.2	1.2	2.1	2.1	2.1	2.1	1.1	1.1	1.0	1.1

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	0.9	0.8	0.84	51.6
November	.9	.8	.88	52.4
December	1.0	.8	.92	56.6
January		.8		
February	3.7	1.1	1.35	75.0
March	2.2	1.3	1.76	108
April	2.5	1.5	1.89	112
May	3.4	1.9	2.28	140
June	2.2	1.5	1.87	111
July	1.5	1.0	1.20	73.8
August	1.4	.9	1.12	68.9
September	1.1	1.0	1.05	62.5

NOTE.—No record Jan. 12-17.



## PALM CANYON CREEK NEAR PALM SPRINGS, CALIF.

LOCATION.—Water-stage recorder in S.  $\frac{1}{2}$  sec. 11, T. 5 S., R. 4 E., three-fourths mile above Murray Canyon Creek and 6 miles south of Palm Springs.

DRAINAGE AREA.—94.0 square miles.

RECORDS AVAILABLE.—January to September, 1930.

EXTREMES.—Maximum discharge during period (estimated), 180 second-feet Aug. 1 (gage height, 2.42 feet); no flow during part of period.

REMARKS.—Records fair.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
1		6	4.0	10	7.5	2.4		10
2		5	3.6	8	7.5	2.4		0
3		4.8	*3.4	7	7.5	1.5		0
4		4.5	*3.4	5.5	23	1.3		0
5		4.0	10	5	22	1.2		0
6	*0.5	3.6	10	4.3	16	.8		1.3
7	*.5	3.4	8.5	4.0	14	.6		.3
8	*.5	3.8	7	3.5	12	.4		0
9	*.5	3.8	6	3.5	10	.4		0
10	*.5	3.6	5.5	3.5	9.5	.3		0
11	3.9	3.4	4.5	3.8	8	.3		0
12	*.5	*3.0	3.8	3.3	7.5	.2		0
13	*5.5	2.6	4.0	3.8	7	.1		0
14	*5.5	2.2	4.2	3.8	6.5	.1		0
15	*7	*2.2	14	3.3	6.5	.1		0
16	11	*2.2	15	3.5	6.5	.1	*0.05	0
17	6	*2.3	16	3.3	8	.1		0
18	11	*2.3	18	3.1	6	.1		0
19	10	*2.2	19	2.7	*5.5	.1		0
20	6.5	2.1	17	2.2	*4.5	.2		0
21	5.5	2.1	14	2.0	*4.0	.1		0
22	*4.8	2.1	12	1.8	*3.8	.2		0
23	*4.1	6	10	1.6	*3.4	.1		0
24	3.0	4.8	9	1.3	*3.2	*.1		0
25	2.5	4.0	8.5	1.6	2.8	*.1		0
26	2.5	4.2	7.5	1.4	3.0	*.1		0
27	33	4.5	6	1.4	2.8	*.1		0
28	32	4.2	5	1.3	2.6	*.1		0
29	13		4.8	1.3	2.2	*.1		0
30	9.5		4.3	2.7	2.2	.1		0
31	7		8.5		2.4			0
Month	Maximum		Minimum		Mean		Run-off in acre-feet	
January 6-31	33		0.5		7.34		378	
February	6		2.1		3.53		196	
March	19		3.4		8.6		529	
April	10		1.3		3.45		205	
May	23		2.2		7.34		451	
June	2.4		.1		.46		27.4	
July					*0.05		3.0	
August	10		0		.37		22.8	
The period							1,810	

\* Estimated.

NOTE.—No flow in September.

## OWENS LAKE BASIN

## OWENS RIVER NEAR ROUND VALLEY, CALIF.

LOCATION.—Water-stage recorder in SE.  $\frac{1}{4}$  sec. 10, T. 6 S., R. 31 E., below Sheep Bridge, 700 feet above mouth of Rock Creek, and 2 miles north of Round Valley.

DRAINAGE AREA.—About 450 square miles.

RECORDS AVAILABLE.—August, 1903, to September, 1923; April, 1927, to September, 1930.

EXTREMES.—Maximum mean daily discharge during year, 243 second-feet Mar. 23; minimum, 77 second-feet Aug. 31.

1903-1923, 1927-1930: Maximum discharge, 1,190 second-feet June 30, 1907 (gage height, 4.0 feet); minimum, 5.4 second-feet Feb. 13, 1923.

REMARKS.—No diversions above station. Record of daily discharge furnished by city of Los Angeles.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	120	118	132	106	122	128	123	94	112	128	81	80
2	120	124	132	105	128	130	117	98	112	125	90	90
3	120	124	126	103	142	130	115	97	112	128	88	93
4	120	124	126	104	142	130	116	94	110	129	83	93
5	124	124	130	104	144	132	115	101	108	128	81	93
6	126	128	126	94	146	132	115	110	112	133	93	90
7	126	124	118	108	150	132	113	101	115	131	95	90
8	124	121	124	81	150	134	110	102	227	133	95	90
9	122	121	128	83	152	134	108	106	240	131	104	93
10	124	124	130	94	146	134	108	106	152	145	114	93
11	124	118	128	87	146	134	108	101	164	140	110	100
12	124	118	130	78	144	142	108	96	177	129	98	104
13	122	118	128	89	144	148	108	88	189	122	110	104
14	120	118	126	100	142	153	107	85	186	118	102	101
15	120	121	124	110	144	158	107	81	228	112	103	100
16	118	121	126	146	140	163	107	106	228	110	99	103
17	116	124	122	147	136	168	107	127	217	176	104	104
18	116	124	120	136	134	173	107	106	217	174	107	105
19	116	126	120	125	132	178	105	98	233	99	99	102
20	118	124	116	123	132	183	105	90	209	99	102	106
21	121	124	113	122	124	188	104	85	192	97	98	108
22	118	118	110	122	126	232	90	83	177	91	94	104
23	124	116	112	118	124	243	91	88	172	91	93	102
24	124	118	110	118	122	232	90	85	180	91	93	104
25	124	121	110	118	128	180	87	88	154	90	96	102
26	118	124	110	122	130	140	86	83	152	90	104	102
27	116	124	112	122	130	128	84	104	146	88	104	102
28	116	124	110	122	126	124	85	104	136	88	102	98
29	116	128	110	122	-----	115	86	104	128	88	90	106
30	116	132	110	122	-----	108	86	108	125	81	82	132
31	118	-----	108	120	-----	109	-----	114	-----	82	77	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	126	116	120	7,380
November	132	116	122	7,260
December	132	108	120	7,380
January	147	78	111	6,820
February	152	122	137	7,610
March	243	108	152	8,350
April	123	84	102	6,130
May	127	81	97.8	6,010
June	240	108	177	9,940
July	145	81	110	6,760
August	114	77	95.5	5,630
September	132	80	99.8	5,940
The year	243	77	120	86,500

## OWENS RIVER AT PLEASANT VALLEY, NEAR BISHOP, CALIF.

LOCATION.—Water-stage recorder in NW.  $\frac{1}{4}$  sec. 24, T. 6 S., R. 31 E., 1,000 feet above Owens River Canal intake and 8 miles northwest of Bishop.

DRAINAGE AREA.—596 square miles.

RECORDS AVAILABLE.—March, 1918, to September, 1930.

EXTREMES.—Maximum mean daily discharge during year, 364 second-feet June 19; minimum, 103 second-feet Aug. 23.

1918-1930: Maximum mean daily discharge, 1,210 second-feet June 21, 1918; minimum, 94 second-feet July 25, 1929.

REMARKS.—Diversions from tributaries above station. Daily-discharge record furnished by the city of Los Angeles.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	153	152	165	151	157	180	170	138	182	199	117	109
2	153	156	161	151	165	186	168	149	175	194	126	114
3	160	158	160	147	181	188	165	146	160	194	131	126
4	168	158	164	148	183	198	162	145	156	186	136	128
5	171	157	168	156	189	205	162	156	162	183	126	126
6	172	160	161	142	191	200	160	161	168	190	134	120
7	171	164	161	162	196	199	158	142	171	182	135	120
8	171	165	165	134	194	202	159	140	186	184	136	120
9	158	164	171	143	196	209	154	152	208	185	151	125
10	171	168	181	155	191	213	150	150	228	212	159	126
11	164	165	179	143	188	215	143	141	243	211	158	140
12	157	160	175	134	187	215	145	139	280	201	148	143
13	149	146	167	130	188	210	147	133	306	181	138	142
14	142	164	163	125	185	212	148	130	320	160	143	141
15	135	158	163	147	185	211	148	125	339	152	138	141
16	130	159	165	185	183	208	148	154	345	156	130	137
17	130	163	165	188	179	208	147	188	335	148	130	138
18	129	161	164	180	175	212	147	169	338	145	134	137
19	137	161	164	164	171	217	145	146	364	134	125	134
20	139	160	164	163	174	235	144	136	329	134	120	145
21	137	159	156	162	170	258	138	130	296	130	116	145
22	137	152	158	159	190	283	129	127	268	130	107	144
23	139	153	156	159	189	322	125	131	246	131	103	145
24	141	156	156	159	179	299	120	130	226	131	105	144
25	135	157	156	162	187	225	115	132	230	126	120	145
26	131	161	156	164	190	194	114	140	226	126	127	145
27	125	162	155	163	186	181	118	150	223	124	128	145
28	133	164	150	159	182	178	120	152	208	126	124	140
29	141	165	151	159	-----	176	122	152	196	118	119	156
30	147	165	151	158	-----	174	126	166	194	114	113	172
31	150	-----	151	155	-----	172	-----	185	-----	114	108	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	172	125	148	9,100
November	168	146	160	9,520
December	181	150	162	9,960
January	188	125	155	9,530
February	196	157	183	10,200
March	322	172	212	13,000
April	170	114	143	8,510
May	188	125	146	8,980
June	364	156	244	14,500
July	212	114	158	9,720
August	159	103	129	7,930
September	172	109	136	8,090
The year	364	103	164	119,000

## OWENS RIVER NEAR BIG PINE, CALIF.

LOCATION.—Water stage recorder in sec. 2, T. 11 S., R. 34 E., at Charlies Butte 11 miles southeast of Big Pine.

DRAINAGE AREA.—1,930 square miles.

RECORDS AVAILABLE.—September, 1906, to September, 1930.

EXTREMES.—Maximum mean daily discharge during year, 478 second-feet Feb. 24; minimum, 6 second-feet June 5.

1906-1930: Maximum discharge, about 3,220 second-feet Jan. 26, 1914 (gage height, 11.2 feet); minimum, that of June 5, 1930.

REMARKS.—Diversions above station from river and tributaries. Daily discharge record furnished by city of Los Angeles.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	134	230	265	282	345	432	369	235	202	268	222	230
2.....	135	238	266	284	351	432	374	245	296	309	232	220
3.....	143	244	264	284	354	432	370	246	299	347	231	210
4.....	154	247	260	280	357	432	363	264	156	357	235	213
5.....	162	252	264	290	366	445	365	269	6	347	235	214
6.....	171	254	267	288	370	461	376	264	176	337	231	222
7.....	175	254	267	297	376	461	357	305	275	326	235	222
8.....	175	256	259	290	384	448	362	308	288	337	230	216
9.....	177	256	263	290	388	445	363	293	281	320	230	213
10.....	181	256	269	285	386	445	355	300	143	319	232	220
11.....	186	257	276	284	386	453	296	318	176	300	234	224
12.....	190	257	280	298	406	456	235	318	274	327	231	225
13.....	193	254	279	288	418	454	220	288	272	343	239	228
14.....	207	254	272	282	422	451	288	278	278	343	235	246
15.....	210	256	270	279	423	449	336	273	276	317	235	251
16.....	197	256	270	284	425	409	373	266	274	297	235	261
17.....	198	257	273	308	422	346	395	270	268	293	234	273
18.....	204	257	276	345	415	335	346	296	305	297	236	278
19.....	208	259	273	357	418	334	339	300	330	281	240	279
20.....	208	260	274	342	417	378	169	288	348	277	235	275
21.....	208	260	276	340	416	415	44	276	382	261	233	276
22.....	208	259	273	342	432	441	166	222	412	257	230	282
23.....	207	260	271	339	463	462	331	214	435	247	226	282
24.....	207	259	271	340	478	460	342	259	438	240	226	280
25.....	211	261	278	342	459	457	335	260	444	237	222	283
26.....	214	260	280	340	445	460	335	256	443	241	229	283
27.....	214	262	280	340	446	459	326	255	436	243	238	276
28.....	214	267	280	342	445	447	270	257	361	241	237	278
29.....	214	265	285	339	-----	404	242	263	274	240	243	276
30.....	218	266	284	340	-----	385	238	260	259	237	240	275
31.....	225	-----	282	345	-----	381	-----	259	-----	222	237	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	225	134	172	11,800
November.....	267	230	256	15,200
December.....	285	259	272	16,700
January.....	357	279	312	19,200
February.....	478	345	408	22,700
March.....	462	334	408	26,300
April.....	395	44	309	18,400
May.....	318	214	271	16,700
June.....	444	6	237	17,700
July.....	350	222	230	17,800
August.....	243	222	233	14,300
September.....	283	210	250	14,900
The year.....	478	6	232	212,000

## ROCK CREEK AT SHERWIN HILL, NEAR BISHOP, CALIF.

LOCATION.—Water-stage recorder in SW.  $\frac{1}{4}$  sec. 29, T. 5 S., R. 31 E., at Sherwin Hill, 3 miles above Pine Creek and 14 miles northwest of Bishop.

DRAINAGE AREA.—52.6 square miles.

RECORDS AVAILABLE.—August, 1922, to September, 1930.

EXTREMES.—Maximum mean daily discharge during year, 71 second-feet June 16, 19; minimum, 1.8 second-feet Jan. 6-7.

1922-1930: Maximum mean daily discharge, 162 second-feet June 17, 1927; minimum, that of Jan. 6, 7, 1930.

REMARKS.—No diversions. Daily discharge record furnished by city of Los Angeles.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	6.5	9.5	8.5	11	17	12	17	22	26	13	8.5
2	6.5	7	9.5	8.5	11	15	12	19	20	29	13	7.5
3	6.5	9	9	6.5	11	13	13	18	18	30	13	7
4	6.5	9.5	9	5.5	11	13	13	18	17	32	12	6
5	6.5	9.5	9	2.4	12	13	14	17	17	33	12	7
6	6.5	9.5	9	1.8	12	12	14	17	18	34	14	6
7	6.5	9.5	9	1.8	12	12	15	17	23	33	14	7
8	6.5	9.5	9	3.1	12	13	16	17	33	33	14	10
9	6.5	9.5	9	6.5	12	13	17	18	32	32	14	9.5
10	6.5	9.5	10	11	12	12	16	17	34	32	16	8.5
11	6.5	10	10	11	12	12	16	17	39	28	15	8.5
12	6.5	9	10	11	11	13	15	17	51	26	17	8.5
13	6.5	6.5	10	10	11	13	16	16	64	25	17	8.5
14	6.5	9	10	10	11	12	14	17	69	22	17	8.5
15	6.5	11	11	10	11	12	14	17	66	23	17	8.5
16	6.5	11	11	9.5	12	11	16	20	71	24	16	9.5
17	6.5	11	11	9	12	11	14	18	70	23	16	9.5
18	6.5	11	11	8	12	12	13	16	68	22	15	8.5
19	6.5	11	11	5.5	11	12	14	15	71	21	14	8.5
20	6.5	10	11	4.6	11	12	14	15	65	20	12	8.5
21	6.5	10	9.5	6	11	12	14	16	53	19	11	8
22	6.5	8.5	9.5	7	11	12	15	17	45	18	11	8
23	6.5	9.5	9.5	8.5	12	12	16	16	39	17	9.5	7.5
24	6.5	8	9.5	10	14	12	16	16	32	16	8	7
25	6.5	9.5	10	12	18	13	16	20	28	15	8	7
26	6.5	9	9	12	13	12	16	19	27	14	8.5	7
27	6.5	9	9.5	11	14	12	16	21	26	14	8	7
28	5.5	9	8.5	12	17	12	15	24	25	14	9.5	7
29	5.5	9	10	12	-----	13	15	27	25	16	12	7.5
30	4.9	9.5	12	12	-----	13	17	27	25	15	12	10
31	5.5	-----	12	11	-----	13	-----	26	-----	14	11	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	7	4.9	6.37	392
November	11	6.5	9.32	555
December	12	8.5	9.90	609
January	12	1.8	8.31	511
February	18	11	12.1	672
March	17	11	12.6	775
April	17	12	14.8	881
May	27	15	18.5	1,140
June	71	17	39.8	2,370
July	34	14	23.2	1,430
August	17	8	12.9	793
September	10	6	8.00	476
The year	71	1.8	14.6	10,600

## ROCK CREEK NEAR ROUND VALLEY, CALIF.

**LOCATION.**—Water-stage recorder in sec. 9, T. 6 S., R. 31 E., a short distance above mouth of Pine Creek and two miles northwest of Round Valley.

**DRAINAGE AREA.**—About 95.9 square miles (revised measurement).

**RECORDS AVAILABLE.**—August, 1903, to November, 1923; April to September, 1930.

**EXTREMES.**—Maximum mean daily discharge during period, 60 second-feet June 19; minimum, 10 second-feet several days in August, September.

1903–1923, 1930: Maximum discharge, 360 second-feet Jan. 25, 1914 (gage height, 5.0 feet); minimum, 10 second-feet several days in August, September, 1930.

**REMARKS.**—Water diverted above station for irrigation. Record of daily discharge furnished by city of Los Angeles.

*Daily and monthly discharge, in second-feet, 1929–30*

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1-----		15	21	29	11	14	16-----	14	19	58	22	11	11
2-----		17	19	27	10	13	17-----	12	19	59	19	11	11
3-----		17	16	28	10	15	18-----	13	17	55	17	11	10
4-----		19	16	24	10	15	19-----	13	18	60	15	12	10
5-----		18	16	27	11	13	20-----	12	16	55	15	12	11
6-----		16	15	30	12	11	21-----	11	16	46	13	12	11
7-----		18	18	25	12	10	22-----	11	17	43	14	12	11
8-----	15	18	23	26	13	10	23-----	12	17	40	14	11	11
9-----	13	19	23	28	13	11	24-----	12	17	36	14	11	11
10-----	13	18	24	30	12	12	25-----	12	18	35	12	12	11
11-----	12	18	29	25	13	12	26-----	11	22	32	14	12	11
12-----	12	18	40	25	12	11	27-----	11	24	28	14	11	11
13-----	14	17	45	24	10	11	28-----	12	26	22	15	11	12
14-----	13	17	52	23	11	11	29-----	12	26	24	13	11	11
15-----	13	19	56	22	10	11	30-----	13	22	28	12	12	11
							31-----		22		11	14	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April 8-30-----	15	11	12.4	566
May-----	26	15	18.7	1,150
June-----	60	15	34.5	2,060
July-----	30	11	20.2	1,240
August-----	14	10	11.5	707
September-----	15	10	11.5	684
The period-----				6,400

## PINE CREEK AT DIVISION BOX, NEAR BISHOP, CALIF.

LOCATION.—Water-stage recorder in NW.  $\frac{1}{4}$  sec. 19, T. 6 S., R. 31 E., one-fourth mile above division box and forks of creek, 4 miles west of Round Valley, and 13 miles northwest of Bishop.

DRAINAGE AREA.—37.9 square miles.

RECORDS AVAILABLE.—October, 1921, to September, 1930.

EXTREMES.—Maximum mean daily discharge during year, 118 second-feet June 11, 12, 14; minimum, 11 second-feet Jan. 8–10, 12, 13.

1922–1930: Maximum mean daily discharge, 286 second-feet June 20, 1922; minimum, 11 second-feet Jan. 8–10, 12, 13, 1930.

REMARKS.—No diversions. Daily discharge record furnished by city of Los Angeles.

*Daily and monthly discharge, in second-feet, 1929–30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	15	14	13	14	12	17	20	42	73	28	21
2	15	15	14	12	14	13	17	20	44	72	28	21
3	15	15	14	12	14	13	17	20	42	68	27	22
4	15	14	14	12	14	13	17	20	48	67	27	27
5	15	14	14	12	14	13	18	20	64	67	27	29
6	15	14	14	12	14	13	18	20	84	64	26	24
7	15	14	14	12	14	13	19	20	90	63	26	20
8	15	14	14	11	14	14	19	20	89	60	26	18
9	15	14	14	11	14	15	20	20	92	53	27	18
10	15	14	14	11	14	16	20	21	107	50	28	17
11	15	14	14	12	14	16	21	21	118	48	28	17
12	15	14	14	11	14	17	21	21	118	47	28	18
13	15	14	14	11	14	18	21	22	116	45	29	18
14	15	14	14	12	14	18	20	22	118	38	28	18
15	14	14	14	12	14	18	20	24	117	38	28	17
16	14	14	14	13	14	18	20	24	116	38	28	16
17	14	14	14	14	13	18	19	24	115	38	27	16
18	14	14	14	14	13	18	19	25	114	37	26	16
19	14	14	14	14	12	18	20	29	97	37	25	16
20	14	14	14	14	12	18	21	37	81	36	25	16
21	14	14	14	14	12	17	22	42	74	36	24	16
22	14	14	14	14	12	16	25	41	63	36	23	16
23	14	14	14	14	12	17	28	44	62	35	23	16
24	14	14	14	14	13	17	30	49	63	33	23	16
25	14	14	14	14	13	17	29	51	65	33	22	15
26	14	14	14	14	12	16	28	57	66	32	22	15
27	14	14	14	14	12	16	25	70	66	31	22	15
28	14	14	14	14	12	16	24	73	67	30	22	15
29	14	14	14	14	14	17	22	63	69	28	22	15
30	15	14	13	14	14	17	21	52	71	28	21	16
31	15	-----	13	14	-----	17	-----	44	-----	28	21	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	15	14	14.5	892
November	15	14	14.1	839
December	14	13	13.9	855
January	14	11	12.9	793
February	14	12	13.3	739
March	18	12	16.0	984
April	30	17	21.3	1,270
May	73	20	33.4	2,050
June	118	42	52.6	4,920
July	73	28	44.8	2,750
August	29	21	25.4	1,560
September	29	15	18.0	1,070
The year	118	11	25.9	18,700

## PINE CREEK NEAR ROUND VALLEY, CALIF.

LOCATION.—Water-stage recorder in sec. 9, T. 6 S., R. 31 E., 600 feet above junction with Rock Creek and 2 miles northwest of Round Valley.

DRAINAGE AREA.—About 58 square miles (revised measurement).

RECORDS AVAILABLE.—August, 1903, to November, 1923; April to September, 1930.

EXTREMES.—Maximum mean daily discharge during period, 68 second-feet June 15, 16; minimum, 0.1 second-foot May 23.

1903–1923, 1930: Maximum discharge, 370 second-feet June 22, 1911; minimum, 0.1 second-foot Aug. 13, 1920, May 23, 1930.

REMARKS.—Water diverted above station for irrigation. Record of daily discharge furnished by city of Los Angeles.

*Daily and monthly discharge, in second-feet, 1929–30*

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1-----		0.5	0.6	6	0.5	0.3	16-----	0.3	1.0	68	2.1	0.3	0.3
2-----		.5	1.0	7	.4	.4	17-----	.3	1.5	60	1.1	.3	.4
3-----		.5	2.4	6.5	.4	.5	18-----	.4	1.8	61	1.2	.3	.4
4-----		2.1	2.6	2.9	.4	.2	19-----	.4	.4	57	.9	.3	.4
5-----		1.8	5.5	2.9	.4	.2	20-----	.4	.3	28	.7	.3	.5
6-----		1.2	5.5	2.6	.5	.2	21-----	.4	.2	20	.8	.3	.3
7-----		.4	4.5	2.6	.5	.2	22-----	.3	.2	9.5	.7	.4	.3
8-----	0.4	.3	6	4.6	.6	.3	23-----	.6	.1	7.5	.9	.4	.3
9-----	.3	.5	8	2.6	.8	.3	24-----	.5	.4	6.5	.8	.4	.4
10-----	.3	.5	11	1.1	.4	.3	25-----	.5	.3	7	.7	.4	.4
11-----	.3	.4	29	1.0	.2	.4	26-----	.3	1.0	7	.7	.4	.4
12-----	.2	.4	57	1.2	.2	.3	27-----	.3	1.5	9	.7	.5	.4
13-----	.2	.4	62	.9	.3	.3	28-----	.4	.2	8	.8	.5	.5
14-----	.2	.7	66	1.0	.3	.3	29-----	.4	.3	7.5	1.0	.4	.5
15-----	.3	.5	68	1.1	.3	.4	30-----	.5	1.2	6	.6	.5	.9
							31-----		2.1		.4	.5	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
Apr. 8-30-----	0.6	0.2	0.36	16.4
May-----	2.1	.1	.75	46.1
June-----	68	.6	23.0	1,370
July-----	7	.4	1.87	115
August-----	.8	.2	.40	24.6
September-----	.9	.2	.37	22.0
The period-----				1,590



## ANTELOPE VALLEY BASIN

## ROCK CREEK NEAR VALYERMO, CALIF.

LOCATION.—Water-stage recorder in NE.  $\frac{1}{4}$  sec. 20, T. 4 N., P. 9 W.,  $1\frac{1}{4}$  miles southeast of Valyermo. Altitude, about 4,050 feet.

DRAINAGE AREA.—23.0 square miles.

RECORDS AVAILABLE.—January, 1923, to September, 1930.

EXTREMES.—Maximum discharge during year, 56 second-feet Mar. 25 (gage height, 1.94 feet); minimum, 2.0 second-feet Oct. 27, Nov. 3-6, 10.

1923-1930: Maximum discharge, 510 second-feet Feb. 16, 1927 (gage height, 3.70 feet); minimum, 1.2 second-feet Aug. 22, 1925.

REMARKS.—Records good. No diversions.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	2.3	2.2	2.3	2.8	3.4	6	28	15	16	10	7	6
2.....	2.3	2.2	2.3	2.8	3.4	5.5	25	16	16	9.5	7.5	6
3.....	2.4	2.0	2.4	2.8	3.4	5.5	23	20	16	9.5	7	5.5
4.....	2.6	2.0	2.4	2.8	3.4	6.5	22	26	15	9	7.5	5.5
5.....	2.6	2.0	2.4	2.9	3.6	7.5	21	22	15	8.5	7	5.5
6.....	2.6	2.0	2.6	2.8	3.6	8	22	21	14	8.5	7	5.5
7.....	2.6	2.2	2.6	2.6	3.6	7.5	24	24	13	8.5	7	5.5
8.....	2.8	2.2	2.6	2.8	3.9	7	25	22	13	8.5	6.5	5.5
9.....	2.9	2.2	2.6	2.9	4.1	6.5	25	20	12	8.5	6.5	5.5
10.....	2.8	2.0	2.6	3.5	4.3	6.5	23	20	12	8.5	6.5	5.5
11.....	2.8	2.2	2.6	4.5	4.5	6	20	21	12	8.5	6.5	5
12.....	2.6	2.4	2.6	4.0	4.7	6	19	24	11	8	6.5	5
13.....	2.6	2.4	2.8	3.5	4.7	6	18	25	11	8	6.5	5
14.....	2.4	2.4	2.8	3.4	5	9.5	18	25	12	8	6.5	4.7
15.....	2.4	2.4	2.8	3.2	5	8.5	16	24	12	8	6.5	4.5
16.....	2.4	2.4	2.8	3.1	5	7.5	16	24	12	8	6.5	4.5
17.....	2.3	2.3	2.9	3.0	5	9	15	22	12	7.5	6.5	4.3
18.....	2.3	2.3	2.9	3.0	5	9.5	14	22	12	7.5	6.5	4.3
19.....	2.3	2.3	2.9	2.9	5	9	15	22	12	7.5	6.5	4.5
20.....	2.3	2.3	2.9	3.0	5	10	16	22	12	7	6.5	4.3
21.....	2.2	2.3	2.9	3.0	5	12	17	23	12	7	6.5	4.5
22.....	2.2	2.4	2.9	2.9	5.5	16	17	22	11	7	6.5	4.5
23.....	2.2	2.4	2.9	2.9	5.5	20	17	20	11	7	6.5	4.7
24.....	2.2	2.4	2.9	2.9	5.5	32	18	19	11	7	6.5	4.7
25.....	2.2	2.4	2.8	2.8	6	45	16	18	11	7	6.5	4.7
26.....	2.2	2.4	2.9	2.8	6	44	15	18	11	7	6.5	4.7
27.....	2.0	2.4	2.8	3.4	6	36	14	18	11	7	6.5	4.7
28.....	2.2	2.4	2.8	3.4	6	32	14	18	11	7	6.5	5
29.....	2.2	2.4	2.8	3.4	-----	32	13	16	10	7	6.5	5
30.....	2.2	2.3	2.8	3.4	-----	34	15	16	10	7	6	5
31.....	2.2	-----	2.8	3.4	-----	32	-----	16	-----	7	6	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	2.9	2.0	2.40	148
November.....	2.4	2.0	2.27	136
December.....	2.9	2.3	2.71	167
January.....	4.5	2.6	3.12	192
February.....	6	3.4	4.68	260
March.....	45	5.5	15.6	959
April.....	28	13	18.7	1,110
May.....	28	15	20.7	1,270
June.....	16	10	12.3	732
July.....	10	7	7.9	486
August.....	7.5	6	6.6	406
September.....	6	4.3	4.99	297
The year.....	45	2.0	8.51	6,160

\* Estimated.

## MOHAVE RIVER BASIN

## DEEP CREEK NEAR HESPERIA, CALIF.

LOCATION.—Water-stage recorder in SE.  $\frac{1}{4}$  sec. 18, T. 3 N., R. 3 W., half a mile above junction with West Fork of Mohave River and 8 miles southeast of Hesperia. Altitude, about 3,050 feet.

DRAINAGE AREA.—137 square miles.

RECORDS AVAILABLE.—December, 1929, to September, 1930.

EXTREMES.—Maximum discharge during year, 340 second-feet Mar. 5 (gage height, 3.55 feet); minimum, 0.2 second-foot Aug. 30 to Sept. 2, and Sept. 4, 5.

REMARKS.—Records good.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		4.7	18	22	114	66	27	3.8	1.6	0.2
2		4.6	18	22	104	74	27	3.4	2.3	.2
3		4.4	19	21	112	132	28	3.0	1.6	.3
4		4.6	21	32	106	240	26	2.5	1.4	.2
5		4.8	20	183	102	164	24	1.9	1.2	.2
6		5	20	112	110	143	22	1.5	1.1	.4
7		6	24	74	114	167	20	1.8	1.0	.4
8		6	28	56	123	134	18	1.4	1.2	.4
9		6	28	48	116	111	17	1.2	1.1	.5
10		7.5	25	44	98	116	17	1.2	1.1	.5
11		7	23	39	84	167	16	1.1	.9	.6
12		12	22	37	78	209	15	1.0	.8	.6
13		20	21	36	78	220	13	.9	.7	.6
14		22	22	74	65	213	11	.8	.6	.6
15		26	24	169	56	180	11	.8	.6	.6
16		30	28	106	48	149	11	.8	.6	.6
17		30	27	106	* 48	118	9.5	.8	.6	.6
18		29	24	110	* 48	105	9.5	.8	.6	.6
19		25	23	98	* 47	101	13	.8	.6	.6
20		18	22	111	* 47	92	14	.6	.6	.6
21		17	21	128	47	98	14	.6	.6	.6
22		16	21	153	46	124	7.5	.7	.5	.6
23		14	56	167	45	61	7.5	.8	.5	.6
24		13	61	214	42	53	7	.8	.5	.6
25		13	39	238	38	47	6.5	.8	.4	.6
26		16	30	229	34	42	6.5	.9	.4	.6
27		4.4	21	29	183	30	6	.9	.4	.6
28		4.4	47	25	149	32	5.5	.9	.4	.6
29		4.7	28		129	33	4.7	1.0	.4	.6
30		4.7	22		132	41	30	1.0	.2	.8
31		4.8	19		146			1.2	.2	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
December 27-31	4.8	4.4	4.6	45.6
January	30	4.4	16.1	990
February	61	18	26.4	1,470
March	238	21	109	6,700
April	123	30	69.5	4,140
May	240	30	113	6,950
June	28	4	13.9	827
July	3.8	.6	1.28	78.7
August	2.3	.2	.80	49.2
September	.8	.2	.62	30.9
The period				21,300

• Estimated.

## MOHAVE RIVER AT AFTON, CALIF.

LOCATION.—Water-stage recorder in sec. 21, T. 11 N., R. 6 E., at Union Pacific Railroad bridge three-fourths mile from Afton.

RECORDS AVAILABLE.—December, 1929, to September, 1930.

EXTREMES.—Maximum discharge during period, 5.2 second-foot Mar. 16 (gage height, 0.99 foot); minimum, 0.5 second-foot Aug. 13–19.

REMARKS.—Records fair. Numerous diversions from river above station.

*Daily and monthly discharge, in second-feet, 1929–30*

Day	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		1.8	1.8	1.6	1.5	1.2	1.2	0.7	0.6	0.7
2		1.8	1.8	1.6	1.5	2.1	1.2	.7	.6	.7
3		1.8	1.8	1.6	1.5	1.6	1.2	.7	.6	.7
4		1.8	1.8	1.6	1.5	1.5	1.1	.7	.6	.7
5		1.8	1.8	1.6	1.5	1.5	1.1	.7	.6	.7
6		1.8	1.8	1.6	1.5	1.4	1.1	.7	.6	.7
7		1.9	1.7	1.6	1.5	1.4	1.1	.7	.6	.7
8		1.9	1.7	1.6	1.5	1.4	1.1	.7	.6	.7
9		2.0	1.7	1.6	1.4	1.4	1.0	.6	.6	.7
10		2.0	1.7	1.6	1.4	1.4	1.0	.7	.6	.8
11		2.2	1.7	1.6	1.4	1.3	1.0	.7	.6	.8
12		2.2	1.7	1.6	1.4	1.3	1.0	.6	.6	.8
13		2.3	1.7	1.6	1.3	1.3	1.0	.6	.5	.8
14		2.0	1.7	1.6	1.4	1.3	1.0	.6	.5	.8
15		1.9	1.6	2.0	1.4	1.3	1.0	.6	.5	.8
16		1.8	1.6	2.4	1.4	1.4	1.0	.6	.5	.8
17		1.8	1.6	2.2	1.3	1.4	1.0	.6	.5	.9
18		1.8	1.6	1.8	1.3	1.3	1.0	.6	.5	.9
19		1.8	1.6	1.7	1.3	1.3	.9	.6	.5	.9
20		1.8	1.6	1.7	1.3	1.2	.8	.6	.6	1.0
21	1.8	1.8	1.6	1.7	1.2	1.2	.8	.6	.6	1.0
22	1.8	1.8	1.6	1.6	1.2	1.2	.8	.6	.6	1.0
23	1.8	1.8	1.6	1.6	1.2	1.2	.8	.6	.6	1.0
24	1.8	1.9	1.6	1.6	1.2	1.2	.8	.6	.6	1.0
25	1.8	1.9	1.6	1.6	1.1	1.2	.8	.6	.6	1.1
26	1.8	1.9	1.6	1.5	1.1	1.2	.8	.6	.7	1.1
27	1.8	2.0	1.6	1.5	1.1	1.2	.8	.6	.7	1.1
28	1.8	1.9	1.6	1.5	1.1	1.2	.8	.6	.7	1.1
29	1.8	1.9		1.6	1.1	1.2	.7	.6	.7	1.1
30	1.8	1.8		1.6	1.1	1.2	.7	.6	.7	1.1
31	1.8	1.8		1.6		1.2		.6	.7	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
December 21–31	1.8	1.8	1.80	39.3
January	2.3	1.8	1.89	116
February	1.8	1.6	1.67	92.8
March	2.4	1.5	1.66	102
April	1.5	1.1	1.32	78.6
May	2.1	1.2	1.33	81.8
June	1.2	.7	.95	56.5
July	.7	.6	.63	38.7
August	.7	.5	.60	36.9
September	1.1	.7	.87	51.8
The period				694

• Interpolated.

## WEST FORK OF MOHAVE RIVER NEAR HESPERIA, CALIF.

LOCATION.—Water-stage recorder in SE.  $\frac{1}{4}$  sec. 13, T. 3 N., R. 4 W., at highway bridge half a mile above junction with Mohave River and 7 miles southeast of Hesperia. Altitude, about 3,050 feet.

DRAINAGE AREA.—74.8 square miles.

RECORDS AVAILABLE.—January to September, 1930.

EXTREMES.—Maximum discharge during period, 518 second-feet Mar. 14 (gage height, 4.20 feet); no flow during summer.

REMARKS.—Records good.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Jan.	Feb.	Mar.	Apr.	May	June	Day	Jan.	Feb.	Mar.	Apr.	May	June
1		6.5	1.1	78	88	10	16	0	1.4	179	14	42	*.2
2		6	1.2	59	54	8.5	17	0	1.4	143	12	40	.1
3		5.5	1.4	46	92	7.5	18	0	.1	125	9	34	*.1
4		3.0	1.7	34	239	7	19	0	.1	112	8.5	31	*.1
5		3.0	34	31	165	6.5	20	0	.1	114	5	27	*.1
6	0	2.5	31	28	140	5	21	.6	.1	116	3.6	25	*.1
7	0	2.5	18	26	146	2.4	22	1.8	.1	117	*3.5	23	*.1
8	0	2.0	16	23	134	*2.0	23	1.7	.6	108	*3.5	23	0
9	0	2.0	13	19	106	*1.8	24	1.7	9	110	3.6	21	0
10	0	1.8	9.5	16	90	*1.6	25	1.7	2.0	96	3.6	20	0
11	0	1.7	8	15	78	1.6	26	2.0	1.6	85	3.0	19	0
12	0	1.7	8.5	14	65	1.0	27	6.5	1.6	69	3.0	14	0
13	0	1.6	8	12	55	*.8	28	17	1.4	59	3.0	13	0
14	0	1.4	75	12	47	*.5	29	14		52	3.0	10	0
15	0	1.4	264	14	43	*.3	30	11		47	41	10	0
							31	8		85		10	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
January 6-31	17	0	2.54	131
February	9	.1	2.22	123
March	264	1.1	68	4,180
April	78	3.0	18.2	1,080
May	239	10	61.4	3,780
June	10	0	1.91	114
The period	-----	-----	-----	9,410

\* Estimated.

NOTE.—No flow in July, August, and September.

## MONO LAKE BASIN

## MONO LAKE NEAR MONO LAKE, CALIF.

LOCATION.—Staff gage in SE.  $\frac{1}{4}$  NE.  $\frac{1}{4}$  sec. 31, T. 2 N., R. 26 E., 2 miles south of Mono Lake post office.

RECORDS AVAILABLE.—June, 1912, to September, 1930 (fragmentary).

EXTREMES.—1912-1930: Maximum stage, 13.55 feet July 18, 1919; minimum, 5.20 feet Sept. 23, 1930.

REMARKS.—Gage-height record furnished by United States Forest Service.

*Gage height, in feet, 1930*

Apr. 5	6.30	July 20	6.00
May 22	6.26	Sept. 23	5.20
May 30	6.12		

## WALKER LAKE BASIN

EAST WALKER RIVER NEAR BRIDGEPORT, CALIF.

LOCATION.—Water-stage recorder in SW.  $\frac{1}{4}$  NE.  $\frac{1}{4}$  sec. 34, T. 6 N., R. 25 E., 1,500 feet downstream from Bridgeport Reservoir, 5 miles north of Bridgeport, and 10 miles above Sweetwater Creek.

DRAINAGE AREA.—362 square miles.

RECORDS AVAILABLE.—October, 1921, to September, 1930. July, 1911, to September, 1914, at a site  $1\frac{1}{2}$  miles upstream.

REMARKS.—Records good except those for December to March, which are fair. Considerable areas of meadow and pasture irrigated near Bridgeport. Flow regulated by Bridgeport Reservoir of Walker River Irrigation District; capacity, 42,000 acre-feet. Gage-height record and results of several discharge measurements furnished by Walker River Irrigation District.

## Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	27	9				43	86	177	113	197	163
2	35	27	2		a 17	a 26	43	86	183	127	189	120
3	35	28	2				39	70	183	137	a 150	115
4	35	28	2	a 9	6	26	40	43	183	143	a 93	120
5	35	28	2		a 6	a 26	42	34	183	148	153	84
6	34	28	2		a 6	a 26	42	35	193	154	189	80
7	32	28	2	17	26	26	40	34	204	161	150	71
8	32	28	2	a 17			42	61	204	169	94	69
9	32	28	3	a 17	a 26	a 26	40	78	210	179	110	65
10	33	29	3	17			36	80	228	181	124	69
11	34	28	a 3		26	26	34	83	230	181	124	66
12	34	28	a 3		a 26	a 26	34	83	237	173	146	64
13	34	28	9		a 26	a 26	48	80	260	171	173	61
14	34	28		a 17	26	26	74	74	288	179	158	58
15	34	28					78	66	302	189	156	55
16	34	28			a 26	a 26	84	66	304	a 200	156	51
17	33	28	9	17			90	67	304	a 200	156	48
18	33	28	a 9		26	26	75	66	304	a 200	154	43
19	33	28	a 9	a 17	a 26	a 26	76	69	296	a 190	141	40
20	33	28	9		a 26	a 26	94	66	294	a 170	136	40
21	33	28		17	26	9	98	65	294	148	141	39
22	33	28	a 9	a 17	a 26	18	94	65	285	156	139	37
23	34	23		a 17	a 26	20	88	74	286	160	139	36
24	33	a 22	9	17	17	20	93	80	286	160	169	34
25	33	21	a 9			26	109	87	181	160	169	32
26	33	21	a 9	a 17	a 17	29	110	93	112	160	169	34
27	34	21	9			43	112	120	115	160	169	33
28	35	21		17	26	42	115	146	115	167	169	a 34
29	34	21		a 17		42	94	161	112	179	169	34
30	25	19	a 9	a 17		42	86	168	112	179	171	47
31	24			17		43		173		183	171	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	36	24	33.1	2,040
November	29	19	26.1	1,550
December		2	6.6	406
January			15.5	953
February			21.0	1,200
March	43		27.5	1,690
April	115	34	69.8	4,150
May	173	34	82.4	5,070
June	304	112	222	13,200
July	200	113	167	10,300
August	197	93	152	9,350
September	163	32	61.4	3,650
The year	304	2	74.0	53,600

a Estimated.

## WALKER RIVER NEAR WABUSKA, NEV.

**LOCATION.**—Water-stage recorder in SE.  $\frac{1}{4}$  sec. 16, T. 15 N., R. 26 E., on Walker River Indian Reservation,  $1\frac{1}{2}$  miles below former gaging station at Parker ranch and  $6\frac{1}{2}$  miles east of Wabuska.

**RECORDS AVAILABLE.**—October, 1929, to September, 1930; July, 1902, to July, 1908, at railroad bridge  $4\frac{1}{2}$  miles upstream; January, 1920, to September, 1929, at Parker ranch,  $1\frac{1}{2}$  miles upstream.

**EXTREMES.**—Maximum mean daily discharge during year, 82 second-feet May 28, 29, June 20 (gage height, 1.23 feet); minimum, 4.0 second-feet Sept. 8 (gage height, 0.76 foot).

1920-1930: Maximum discharge, 2,220 second-feet June 8, 1927; no flow at times in 1924, 1925.

**REMARKS.**—Records furnished by United States Indian Service. Station below all diversions except for Walker River Indian Reservation. Flow regulated by storage in reservoirs above station; also by diversions.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4	10	34	25	10	15	12	38	45	22	21	6
2	4	10	38	14	11	14	14	36	41	23	16	5
3	5	10	38	15	13	15	13	33	33	23	15	5
4	5	11	23	13	12	14	12	36	31	26	16	5
5	5	11	25	15	11	14	12	37	28	29	18	6
6	5	11	25	52	11	14	11	38	29	33	19	6
7	5	12	20	13	12	14	11	35	26	33	15	5
8	5	13	19	15	12	14	11	33	33	36	13	4
9	5	12	19	10	12	14	11	30	73	32	14	5
10	5	13	19	8	12	14	13	33	54	33	13	6
11	5	14	17	9	12	14	15	32	53	35	12	6
12	6	25	19	9	13	14	14	31	59	35	11	6
13	6	25	21	13	13	13	12	30	45	30	11	6
14	6	25	23	9	15	14	11	25	33	28	26	5
15	6	22	23	14	15	14	12	24	28	25	33	5
16	6	18	23	18	16	14	14	24	23	23	38	5
17	6	20	18	54	16	14	22	30	26	21	37	5
18	6	19	23	11	16	14	23	33	43	20	36	5
19	6	19	22	13	16	14	21	33	69	24	35	5
20	6	20	21	13	16	14	18	35	82	24	30	5
21	6	23	28	13	15	14	16	35	54	21	24	5
22	7	25	33	13	14	14	15	30	41	19	21	5
23	8	22	34	13	15	14	14	31	35	17	14	5
24	9	25	34	13	17	14	13	38	33	26	11	5
25	9	25	37	24	17	15	14	59	31	28	10	5
26	9	20	23	24	17	14	26	69	30	20	9	5
27	9	18	32	20	16	14	30	73	26	13	8	5
28	9	18	28	16	18	13	32	82	24	12	6	5
29	9	18	27	11		13	40	82	23	13	6	9
30	10	20	23	12		14	36	69	22	14	6	12
31	10		22	11		15		54		18	6	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	10	4	6.5	400
November	25	10	17.8	1,060
December	38	17	25.5	1,570
January	54	8	16.5	1,010
February	18	10	14.0	778
March	15	13	14.0	861
April	40	11	17.3	1,030
May	82	24	41.0	2,520
June	82	22	39.4	2,340
July	36	12	24.4	1,500
August	38	6	17.7	1,090
September	12	4	5.6	333
The year	82	4	20.0	14,500

## WALKER RIVER AT SCHURZ, NEV.

LOCATION.—Staff gage in sec. 36., T. 13 N., R. 28 E., 50 feet below Southern Pacific Railroad bridge at Schurz, 3 miles above Walker Lake, and 6 miles below diversion dam of Walker River Indian Reservation.

DRAINAGE AREA.—2,850 square miles.

RECORDS AVAILABLE.—July, 1913, to September, 1930.

EXTREMES.—Maximum discharge during year, 61 second-feet May 8 (gage height, 1.60 feet); minimum, 1 second-foot for several days in February and March.

1913-1930: Maximum discharge, 2,530 second-feet June 8, 9, 1914, (gage height, 11.0 feet); practically no flow for periods in nearly every year.

REMARKS.—Records fair. Station below all diversions. Flow regulated by reservoirs above station; also by irrigation diversion.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2	2	4	8	17	2	2	12	5	5	2	2
2	2	2	7	6	20	2	2	5	3	4	2	2
3	2	2	7	5	19	2	2	3	3	4	2	2
4	2	2	18	5	17	2	2	26	3	3	2	2
5	2	2	11	12	17	1	2	37	3	3	2	2
6	2	2	7	28	17	1	2	54	3	3	2	2
7	2	2	6	28	17	1	2	49	3	3	2	2
8	2	2	20	27	15	2	2	54	4	3	2	2
9	2	2	18	11	11	2	2	49	7	3	2	2
10	2	2	18	6	9	2	2	46	29	3	2	2
11	2	2	16	5	8	2	2	43	14	4	2	2
12	2	2	19	4	5	2	2	41	4	6	2	2
13	2	2	21	3	5	2	2	37	3	7	2	2
14	2	2	24	3	4	2	2	22	3	3	2	2
15	2	2	27	3	2	2	2	7	3	6	2	2
16	2	2	33	3	2	2	2	6	5	5	2	2
17	2	2	34	4	2	2	2	5	5	4	2	2
18	2	2	36	5	2	1	3	4	4	2	2	2
19	2	2	36	8	2	2	3	3	5	3	2	2
20	2	2	35	15	2	2	3	2	4	2	2	2
21	2	2	22	9	2	2	2	2	5	2	2	2
22	2	2	19	17	2	2	2	2	5	2	2	2
23	2	2	20	22	2	2	2	2	5	2	2	2
24	2	2	21	17	2	2	2	2	6	2	2	2
25	2	2	24	17	2	2	3	2	6	3	2	2
26	2	2	20	26	1	1	3	2	7	4	2	2
27	2	2	16	31	1	2	3	2	7	2	2	2
28	2	2	16	35	2	2	3	3	8	2	2	2
29	2	2	15	29	—	2	3	3	8	2	2	2
30	2	2	13	25	—	2	4	2	6	2	2	2
31	2	—	12	24	—	2	—	11	—	2	2	—

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	2	2	2.0	123
November	2	2	2.0	119
December	36	4	19.2	1,180
January	35	3	14.2	873
February	20	1	7.4	411
March	2	1	1.8	111
April	4	2	2.4	143
May	54	2	17.4	1,070
June	29	3	5.9	351
July	7	2	3.4	209
August	2	2	2.0	123
September	2	2	2.0	119
The year	54	1	6.7	4,830

## WALKER LAKE NEAR HAWTHORNE, NEV.

LOCATION.—Staff gage bolted to cliff on west shore in sec. 5, T. 9 N., R. 29 E., 1 mile north of Cottonwood Creek and 12 miles northwest of Hawthorne.

RECORDS AVAILABLE.—August, 1928, to September, 1930.

EXTREMES.—1928-1930: Maximum elevation, 4,050.2 feet Aug. 8, 1928; minimum, 4,042.2 feet Sept. 18, 1930.

REMARKS.—Records furnished by United States Navy Department.

*Elevation, in feet, 1928-1930*

Date	Elevation	Date	Elevation	Date	Elevation
1928		1929		1930	
Aug. 8.....	4,050.2	Nov. 13.....	4,045.2	Apr. 24.....	4,044.4
Sept. 29.....	4,049.2	Nov. 20.....	4,045.2	May 1.....	4,044.3
Oct. 20.....	4,048.8	Nov. 27.....	4,045.1	May 9.....	4,044.3
Nov. 28.....	4,048.5	Dec. 5.....	4,045.1	May 15.....	4,044.25
Dec. 11.....	4,048.2	Dec. 12.....	4,045.1	May 22.....	4,044.2
		Dec. 18.....	4,045.0	May 31.....	4,044.2
1929		Dec. 24.....	4,044.95	June 4.....	4,044.2
Feb. 21.....	4,048.2	Dec. 31.....	4,044.95	June 5.....	4,044.2
Mar. 17.....	4,048.1			June 12.....	4,044.2
Apr. 10.....	4,048.0	1930		June 21.....	4,044.2
Apr. 29.....	4,047.9	Jan. 9.....	4,044.9	July 1.....	4,043.7
May 17.....	4,047.8	Jan. 16.....	4,044.8	July 9.....	4,043.6
May 28.....	4,047.7	Jan. 23.....	4,044.75	July 16.....	4,043.45
June 16.....	4,047.6	Jan. 30.....	4,044.65	July 24.....	4,043.35
June 28.....	4,047.5	Feb. 5.....	4,044.7	July 29.....	4,043.25
July 19.....	4,047.2	Feb. 13.....	4,044.7	Aug. 5.....	4,043.15
July 31.....	4,047.0	Feb. 20.....	4,044.7	Aug. 12.....	4,042.95
Aug. 15.....	4,046.75	Feb. 26.....	4,044.7	Aug. 21.....	4,042.85
Aug. 29.....	4,046.5	Mar. 5.....	4,044.7	Aug. 27.....	4,042.75
Sept. 16.....	4,046.1	Mar. 13.....	4,044.7	Sept. 4.....	4,042.65
Sept. 30.....	4,045.7	Mar. 20.....	4,044.5	Sept. 11.....	4,042.55
Oct. 19.....	4,045.65	Mar. 27.....	4,044.55	Sept. 18.....	4,042.3
Oct. 23.....	4,045.6	Apr. 3.....	4,044.45	Sept. 25.....	4,042.2
Oct. 30.....	4,045.4	Apr. 10.....	4,044.45		
Nov. 5.....	4,045.35	Apr. 17.....	4,044.4		

NOTE.—Elevations refer to mean sea level.



## WEST WALKER RIVER NEAR COLEVILLE, CALIF.

LOCATION.—Water-stage recorder in NE.  $\frac{1}{4}$  sec. 28, T. 8 N., R. 23 E., immediately below Rock Creek (Ross Canyon), at head of Antelope Valley, 5 miles south-east of Coleville, and 10 miles below East Fork.

DRAINAGE AREA.—245 square miles.

RECORDS AVAILABLE.—June, 1915, to September, 1930. October, 1902, to July, 1908, at a site half a mile upstream.

EXTREMES.—Maximum discharge during year, 1,450 second-feet June 12 (gage height, 4.70 feet); minimum not recorded.

1915-1930: Maximum discharge, 2,710 second-feet June 12, 1921 (gage height, 5.74 feet); minimum, 5 second-feet Dec. 3, 1924 (gage height, 1.21 feet).

REMARKS.—Records fair. Station above all diversions except one small canal  $1\frac{1}{2}$  miles upstream, which diverts a maximum of 3 second-feet. Very slight regulation from storage in Poor Lake Reservoir, 17 miles upstream; capacity unknown.

## Daily and monthly discharge, in second-feet, 1929-30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	31	* 21		35	44	155	223	429		95	47
2	29	33	19		36	49	148	223	461		95	46
3	29	33	22		36	50	157	238	532	* 450	96	46
4	29	31	27		37	47	173	226	635		96	45
5	30	31	25		40	45	198	220	837		91	43
6	30	31	21		43	44	235	220	1,070	385	89	42
7	29	27	24		44	43	238	212	1,260		84	40
8	28	26	24	* 22	46	47	306	209	1,150		93	39
9	28	30	32		45	47	332	196	1,050		98	39
10	27	32	58		45	43	300	180	1,150	* 330	100	42
11	28	25	43		44	46	263	183	1,250		98	43
12	27	19	36		43	49	269	206	1,320		109	43
13	28	20	38		43	52	279	266	1,280	270	98	40
14	28	23	37		43	52	244	317	1,220		89	39
15	29	25	36		44	50	232	317	1,240		81	38
16	28	24	40		44	50	223	314	1,280	* 220	74	37
17	28	23	38		45	49	218	339	1,170		70	35
18	28	24	38		47	49	212	351	1,120		64	35
19	27	23	40		50	46	226	485	1,050		59	35
20	27	21	36	* 30	51	49	308	779	889	168	55	36
21	26	21	32		40	55	391	889	804		52	36
22	27	21	29		56	60	447	719	701		50	35
23	26	23	27		44	72	476	725	659		47	35
24	27	23	28		42	93	466	798	588	* 140	47	35
25	26	23	33		45	117	387	824	548		47	36
26	27	23	26	35	46	137	366	882	543		52	37
27	28	24	26	* 35	46	146	314	767	532	113	52	37
28	28	24	27	* 34	49	146	282	1,010	527		54	36
29	26	25	28	* 33		166	263	882	511	* 103	51	42
30	26	* 23	27	32		198	241	629	511		50	51
31	29		* 26	36		180		476		93	47	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	30	26	27.8	1,710
November	33	19	25.4	1,510
December	58	19	31.1	1,910
January			26.9	1,650
February	56	35	43.9	2,440
March	198	43	74.9	4,610
April	476	148	278	16,500
May	1,010	180	461	28,300
June	1,320	429	877	62,200
July			249	15,300
August	109	47	73.6	4,530
September	51	35	39.7	2,360
The year	1,320		184	133,000

\* Estimated.

## WEST WALKER RIVER AT HOYE BRIDGE, NEAR WELLINGTON, NEV.

LOCATION.—Water-stage recorder in SE.  $\frac{1}{4}$  sec. 17, T. 10 N., R. 23 E., at Hoyer Bridge, 2 miles above head of Saroni Canal and 4 miles southwest of Wellington.

DRAINAGE AREA.—504 square miles.

RECORDS AVAILABLE.—April to August, 1910; March, 1924, to September, 1930.

Record obtained  $3\frac{1}{4}$  miles downstream December, 1917, to May, 1924.

EXTREMES.—Maximum discharge during year, 867 second-feet June 8 (gage height, 7.52 feet); minimum not recorded.

1924-1930: Maximum mean daily discharge, 1,520 second-feet June 18, 1927 (gage height, 10.05 feet); minimum, 6 second-feet Dec. 19, 1925 (gage height, 2.49 feet).

REMARKS.—Records fair. Station below all diversions in Antelope Valley and above all diversions in Smith Valley. Flow regulated by storage in Poor Lake and Topaz Lake Reservoirs. Gage-height record and results of three discharge measurements furnished by Walker River Irrigation District.

## Daily and monthly discharge, in second-feet, 1929-30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25						81	343	487		259	
2	26						90	297	456		250	65
3	29						95	271	419		238	
4	30						96	273	449		229	62
5	29						102	259	530		217	62
6	30						104	190	634		214	61
7	31						110	251	724		201	58
8	33						259	259	802		185	57
9	35					17	242	253	689		183	56
10	35						189	238	579		190	54
11	32						180	208	576		185	46
12	34						178	187	556		182	45
13	36						189	198	524		175	47
14	40						251	203	517		170	49
15	38				20		269	275	728		156	52
16			18	15			285	335	778		142	47
17							287	354	790		131	45
18		19				17	257	287	752		124	43
19						35	273	244	678		116	41
20						53	240	335	544		109	49
21	39						66	240	441	558	102	51
22							66	267	512	632	99	51
23							68	295	662	535	93	51
24							55	496	668	406	93	46
25							54	530	655	339	90	44
26	40					54	436	705	343		89	38
27	39					57	505	689	398		89	39
28	39					71	482	705	419		88	40
29	38					74	436	666	430		79	46
30	38					75	415	592	421		74	70
31	38					79		517		267	69	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October			25	2,190
November			" 20	1,190
December			" 18	1,110
January			" 15	922
February			" 20	1,110
March	79		35.9	2,210
April	530	81	263	15,600
May	705	187	389	23,900
June	802	339	556	33,100
July			" 320	19,700
August	259	69	149	9,160
September	70	38	51.5	3,060
The year	802		157	113,000

• Estimated.

## HUMBOLDT-CARSON SINK BASIN

## CARSON RIVER BASIN

## EAST FORK OF CARSON RIVER NEAR MARKLEEVILLE, CALIF.

LOCATION.—Staff gage in NE.  $\frac{1}{4}$  sec. 27, T. 10 N., R. 20 E., at Hangmans Bridge 100 feet below mouth of Indian Creek and 2 miles east of Markleeville.

RECORDS AVAILABLE.—November, 1910, to September, 1930 (fragmentary).

EXTREMES.—1910-1930: Maximum stage, 7.7 feet June 7, 1911 (discharge not determined); minimum discharge, 6 second-feet Sept. 20, 1913.

REMARKS.—Records fair. Flow partly regulated by storage. No diversions. Gage-height record furnished by United States Forest Service.

*Daily discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Apr.	May	June	July	Aug.	Sept.
1						318		
2					429			
3								
4						236		
5								
6					860	224		
7					920			
8			380			201	76	
9					920		76	62
10							56	56
11								
12								
13						128	84	
14				348	750	168	76	
15							62	
16					805		76	
17				380	805			
18							40	40
19	34	24					92	
20				700	540			
21					482			40
22								
23							84	
24						108		
25								45
26				805				
27							76	40
28						92		
29				805				
30							62	
31								

NOTE.—No record on days for which no discharge is given.

## CARSON RIVER NEAR FORT CHURCHILL, NEV.

LOCATION.—Water-stage recorder in sec. 5, T. 16 N., R. 23 E., 1 mile west of Clifton station on Mound House-Churchill branch of Southern Pacific Railroad 9 miles west of Fort Churchill and 10 miles east of Dayton.

DRAINAGE AREA.—1,200 square miles.

RECORDS AVAILABLE.—April, 1911, to September, 1930.

EXTREMES.—Maximum mean daily discharge during year, 1,290 second-feet May 22 (gage height, 5.64 feet); minimum, 6 second-feet Sept. 20.

1911-1930: Maximum discharge, 6,150 second-feet Jan. 26, 1914 (gage height, 11.5 feet); no flow during periods in nearly every year since 1923.

REMARKS.—Carson and Dayton Valleys irrigated above station. Records of daily discharge furnished by United States Bureau of Reclamation.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	10	16	63	100	144	206	367	390	578	113	11	14
2.....	10	16	63	103	154	202	325	434	565	94	11	13
3.....	9	16	64	100	164	193	290	431	507	84	10	13
4.....	10	15	62	102	187	200	305	427	518	78	9	12
5.....	10	15	61	104	202	228	328	440	549	72	10	11
6.....	9	15	61	107	212	262	355	447	639	70	10	11
7.....	9	15	63	100	237	253	411	431	756	66	12	10
8.....	9	16	62	130	255	216	431	421	902	55	14	9
9.....	10	17	62	147	259	196	518	440	997	48	14	10
10.....	10	17	74	183	253	191	626	372	868	44	13	10
11.....	10	19	142	155	220	185	574	350	750	36	13	11
12.....	11	23	336	130	214	182	454	331	802	33	14	15
13.....	11	24	248	183	195	180	396	310	857	33	12	15
14.....	11	22	204	196	189	187	440	300	835	28	10	15
15.....	11	21	214	180	187	206	553	315	781	24	11	14
16.....	11	23	208	204	182	212	526	328	745	25	10	13
17.....	11	24	183	178	182	210	424	408	715	26	8	12
18.....	12	27	178	138	180	202	355	630	658	24	10	10
19.....	12	30	159	160	174	196	328	766	582	24	11	8
20.....	13	31	141	193	176	193	325	897	530	23	12	6
21.....	13	32	133	176	191	187	418	1,060	464	21	10	7
22.....	13	34	127	176	206	198	599	1,290	408	19	10	7
23.....	12	36	121	331	216	208	720	1,030	367	16	11	8
24.....	12	40	114	323	290	222	792	813	328	15	11	8
25.....	13	44	127	204	255	248	863	792	285	15	12	9
26.....	13	44	121	160	220	290	725	818	250	15	15	9
27.....	14	46	121	155	206	325	595	824	198	14	15	10
28.....	12	47	117	155	206	342	503	879	180	12	13	10
29.....	12	47	108	152	-----	342	434	920	162	11	12	14
30.....	13	50	103	150	-----	353	358	914	136	11	14	15
31.....	14	-----	102	144	-----	384	-----	681	-----	12	14	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	14	9	11.3	695
November.....	50	15	27.4	1,630
December.....	336	61	127	7,810
January.....	331	100	162	9,960
February.....	290	144	206	11,400
March.....	384	180	232	14,300
April.....	863	290	478	28,400
May.....	1,290	300	609	37,400
June.....	997	136	564	33,600
July.....	113	11	37.5	2,310
August.....	15	8	11.7	719
September.....	15	6	11.0	655
The year.....	1,290	6	206	149,000

## SURFACE WATER SUPPLY, 1930, PART X

MARKLEEVILLE CREEK<sup>1</sup> ABOVE MARKLEEVILLE, CALIF.

LOCATION.—Staff gage in sec. 29, T. 10 N., R. 20 E., at highway bridge above mouth of Pleasant Valley Creek, three-fourths mile above Markleeville.

RECORDS AVAILABLE.—November, 1911, to September, 1930 (fragmentary).

REMARKS.—Records fair. Irrigation diversions above station. Gage-height record furnished by United States Forest Service.

*Daily discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Apr.	May	June	July	Aug.	Sept.
1						22		
2	0.4			73	78	21	3.0	
3				78		18		
4					146	20		
5	.4			60		17		
6				64			2.5	
7								
8					146			
9			86					
10			78	46		12		2.5
11						12		
12				64		10		
13		0.9		73				
14		.5		83			3.0	
15		.7						
16		.7	67	70				
17			70					
18		.6	73		70			3.0
19	.7		90	157			3.0	
20		.7			49			
21		1.4	150					
22		1.4	168					
23				146	42			
24			146			2.5		
25	.5		120					
26			104					
27				146	29			
28	.5		78		26			
29			70			4.0		
30				104				
31	.5			95				

NOTE.—No record on days for which no discharge is given.

<sup>1</sup> Known locally as Hot Springs Creek.

## MARKLEEVILLE CREEK AT MARKLEEVILLE, CALIF.

LOCATION.—Staff gage in SE.  $\frac{1}{4}$  sec. 21, T. 10 N., R. 20 E., at highway bridge at Markleeville, three-fourths mile below junction with Pleasant Valley Creek.

RECORDS AVAILABLE.—November, 1910, to September, 1930 (fragmentary).

REMARKS.—Records fair. Irrigation diversions and storage above station. Gage-height record furnished by United States Forest Service.

*Daily discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Apr.	May	June	July	Aug.	Sept.
1				144		50		
2	2.1			162				
3				180	231	55		
4	2.1			266	266			5
5	2.1			136	266	50		
6				144	336			6
7	2.4			136	352	42		
8	2.4	3.8	200		387	35		
9	2.4		190	116	266		9	5
10	2.4		162	104				
11	2.4							4.2
12				144		28	19	
13				171		28	12	
14		2.7		220	200	23		
15		7	129	200				
16		6	144	180	180			6
17			144	200				5
18		5	136	352				5
19	3.2		162	352			9	
20		5		507	116			
21		5.5	306	507	110			
22		5.5	336					
23			352		104			
24			352					
25	2.7		266					
26	2.7		266	444				
27				387			6.5	6.5
28	3.2		171				5	
29	2.7		162			38		
30	2.7						6.5	
31	2.4							

NOTE.—No record on days for which no discharge is given.

## HUMBOLDT RIVER BASIN

## HUMBOLDT RIVER AT PALISADE, NEV.

LOCATION.—Chain gage in sec. 36, T. 32 N., R. 51 E., at highway bridge at Palisade, 100 feet below Southern Pacific Railroad bridge and 1 mile above mouth of Pine Creek.

DRAINAGE AREA.—5,010 square miles.

RECORDS AVAILABLE.—November, 1902, to October, 1906; July, 1911, to September, 1930.

EXTREMES.—Maximum discharge during year, 794 second-feet<sup>+</sup> May 22 (gage height, 4.27 feet); minimum, 16 second-feet Sept. 17-21.

1902-1906, 1911-1930: Maximum discharge, 4,300 second-feet Mar. 3, 1921 (gage height, 8.6 feet); minimum, 6 second-feet Aug. 3, 5, 1926 (gage height, 1.02 feet).

REMARKS.—Records fair. Some water diverted for irrigation in valleys above station.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	26	31	24	42	52	182	177	60	622	182	22	22
2.....	27	33	26	44	50	177	173	60	604	164	22	22
3.....	28	34	27	48	57	186	169	62	594	141	28	22
4.....	27	33	28	50	58	191	169	66	604	133	91	22
5.....	29	30	29	52	60	182	164	83	576	119	126	24
6.....	29	28	34	55	58	177	160	133	524	103	66	22
7.....	28	26	40	57	60	186	164	182	516	94	57	24
8.....	28	24	44	55	62	191	169	206	594	88	42	24
9.....	27	24	42	58	64	196	177	241	604	86	41	24
10.....	27	22	44	58	66	200	186	348	594	86	44	22
11.....	26	22	45	60	71	196	182	402	594	119	50	20
12.....	24	22	47	57	86	191	177	542	604	106	53	22
13.....	26	20	48	58	97	186	169	622	594	91	64	20
14.....	28	20	50	60	133	182	160	622	576	83	60	18
15.....	27	20	53	62	144	186	152	660	730	71	48	18
16.....	28	22	57	58	152	191	141	710	660	48	45	18
17.....	30	22	58	57	152	186	133	730	613	37	42	16
18.....	30	24	62	57	191	191	122	740	604	31	40	16
19.....	29	26	64	58	200	196	109	720	613	27	38	16
20.....	31	27	66	60	210	206	100	710	622	33	37	16
21.....	30	26	62	62	206	216	91	740	613	37	34	16
22.....	29	26	55	62	210	206	80	794	559	38	31	20
23.....	30	22	57	60	216	200	66	760	508	37	28	20
24.....	31	20	66	60	226	182	73	730	431	36	26	22
25.....	33	21	80	64	220	177	78	641	410	34	26	22
26.....	34	22	66	66	216	186	83	622	368	33	27	22
27.....	31	24	53	78	206	182	78	613	316	30	28	22
28.....	31	23	41	73	191	191	71	586	274	27	26	24
29.....	30	22	42	78	-----	182	64	594	231	26	24	24
30.....	31	22	41	75	-----	177	52	632	200	24	22	26
31.....	33	-----	40	57	-----	173	-----	660	-----	24	24	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	34	24	29.0	1,780
November.....	34	20	24.6	1,460
December.....	80	24	48.1	2,960
January.....	78	42	59.4	3,650
February.....	226	50	133	7,390
March.....	216	173	189	11,600
April.....	186	52	130	7,740
May.....	794	60	493	30,300
June.....	730	200	532	31,700
July.....	182	24	70.6	4,340
August.....	126	22	42.3	2,600
September.....	26	16	20.9	1,240
The year.....	794	16	147	107,000

## HUMBOLDT RIVER NEAR OREANA, NEV.

**LOCATION.**—Water-stage recorder in sec. 2, T. 28 N., R. 32 E., 2 miles above highway bridge near J. J. McCarthy ranch and two miles southwest of Oreana.

**DRAINAGE AREA.**—13,800 square miles.

**RECORDS AVAILABLE.**—January, 1896, to December, 1909; September, 1910, to September, 1922; September, 1924, to September, 1930 (fragmentary).

**EXTREMES.**—Maximum discharge during period March to August, 230 second-feet Aug. 12 (gage height, 2.10 feet); minimum, less than 1 second-foot during later part of July.

1896–1922, 1924–1930: Maximum discharge, 3,050 second-feet May 12, 1897 (gage height, 12.0 feet); no flow during periods in 1905, 1915, 1918–1920.

**REMARKS.**—Records fair. Station above all diversions for Lovelock district but considerable water diverted above station for irrigation and storage. Flow affected by operation of reservoirs of Humboldt-Lovelock Irrigation, Light & Power Co. near Humboldt. Results of several discharge measurements furnished by Humboldt River water commissioner.

*Daily and monthly discharge, in second-feet, 1929–30*

Day	Mar.	Apr.	May	June	July	Day	Mar.	Apr.	May	June	July
1. ....		a 5	29	23	15	16. ....		80	3 <sup>a</sup>	105	2
2. ....		a 5	28	14	13	17. ....	3	82	2 <sup>a</sup>	128	2
3. ....		a 5	23	9	11	18. ....	2	86	25	130	2
4. ....		a 5	24	8	10	19. ....	2	82	23	96	1
5. ....		a 14	82	8	9	20. ....	2	80	2 <sup>a</sup>	90	1
6. ....		45	136	8	13	21. ....	2	78	2 <sup>a</sup>	90	1
7. ....		56	100	22	10	22. ....	2	75	1 <sup>a</sup>	84	1
8. ....		76	98	80	8	23. ....	2	73	17	59	1
9. ....		78	82	105	7	24. ....	3	67	14	35	1
10. ....		73	45	121	6	25. ....	3	59	12	32	1
11. ....		71	39	133	6	26. ....	3	50	1 <sup>a</sup>	28	1
12. ....		75	34	130	5	27. ....	3	45	9	25	1
13. ....		73	36	116	4	28. ....	a 4	39	8	22	1
14. ....		76	30	107	3	29. ....	a 4	36	9	19	1
15. ....		80	28	107	3	30. ....	a 4	37	14	17	1
						31. ....	a 4		17		1

Month	Maximum	Minimum	Mean	Run-off in acre-feet
March 17–31. ....	4	2	2.9	85
April. ....	96	5	55.9	3,390
May. ....	136	8	35.6	2,190
June. ....	133	8	65.0	3,870
July. ....	15	1	4.6	283

<sup>a</sup> Estimated.

**NOTE.**—No record on days and months omitted except Aug. 1–13, when records, reliable only at high stages, were obtained; flow during periods omitted probably insignificant except on a few days in August and September when small freshets occurred.



## SOUTH FORK OF HUMBOLDT RIVER NEAR ELKO, NEV.

LOCATION.—Staff gage in sec. 30, T. 33 N., R. 55 E., at ranch half a mile below highway bridge, half a mile above head of canyon, and 10 miles southwest of Elko.

DRAINAGE AREA.—1,150 square miles.

RECORDS AVAILABLE.—August, 1896, to September, 1922; October, 1923, to September, 1930.

EXTREMES.—Maximum discharge during year, 475 second-feet May 29, 30, June 11-14; no flow Sept. 1-6.

1896-1922, 1923-1930: Maximum discharge, 2,400 second-feet Jan. 26, 1914; no flow during periods in nearly every year since 1915.

REMARKS.—Records fair. Station below all diversions except those of Hunter & Banks ranch, 3 miles downstream.

*Daily and monthly discharge, in second-feet, 1929-31*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	13	14				69	44	61	424	51	10	0
2.....	13	13				68	48	61	427	43	66	0
3.....	13	13				66	51	61	401	38	264	0
4.....	13	13				63	53	106	424	35	162	0
5.....	13	13				61	54	195	431	33	130	0
6.....	13	14				60	57	195	435	32	74	0
7.....	10	14				56	72	201	435	29	37	1
8.....	9	14				54	84	241	439	28	30	1
9.....	8	14				52	95	277	443	25	25	2
10.....	8	14				51	98	328	463	40	23	3
11.....	8	14				52	102	331	471	58	23	3
12.....	8	14				53	104	346	475	53	28	3
13.....	8	14				51	102	353	475	52	32	4
14.....	8	15				51	100	356	475	49	32	4
15.....	8	15			30	51	100	360	435	46	25	4
16.....	8	15	20	15		51	98	360	427	42	25	5
17.....	8	15				53	96	360	427	34	25	5
18.....	8	14				53	95	375	416	30	23	5
19.....	8	14				51	91	390	397	27	23	5
20.....	8	14				49	81	390	382	25	22	6
21.....	8	14				46	81	416	375	24	21	6
22.....	8	14				46	75	435	360	22	20	6
23.....	8	14				45	66	435	338	17	18	6
24.....	9	14				45	63	435	290	16	16	10
25.....	9	14				45	61	435	241	13	13	10
26.....	8	12				44	60	427	181	13	10	10
27.....	10	15				44	60	427	146	10	7	10
28.....	10	16				43	61	431	108	10	5	10
29.....	11	15				43	61	475	78	10	4	10
30.....	11	16				43	61	475	70	10	3	10
31.....	12					43		427		10	1	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	13	8	9.6	590
November.....	16	12	14.1	839
December.....			* 20	1,230
January.....			* 15	922
February.....			* 30	1,670
March.....	69	43	51.7	3,180
April.....	104	44	75.8	4,510
May.....	475	61	328	20,200
June.....	475	70	363	21,600
July.....	58	10	29.8	1,830
August.....	264	1	38.6	2,370
September.....	10	0	4.6	274
The year.....	475	0	81.7	59,200

\* Estimated.

## MARTIN CREEK NEAR PARADISE VALLEY, NEV.

LOCATION.—Water-stage recorder in SE.  $\frac{1}{4}$  NE.  $\frac{1}{4}$  sec. 11, T. 42 N., R. 40 E.,  $\frac{1}{2}$  miles above Silver State flour mill and 8 miles northeast of Paradise Valley.

RECORDS AVAILABLE.—October, 1921, to September, 1930.

EXTREMES.—Maximum discharge during year, 96 second-feet during a period of missing gage-height record (gage height from high-water mark, 5.05 feet); minimum, 4 second-feet Nov. 19–22.

1921–1930: Maximum discharge, about 1,000 second-feet Feb. 21 or 22, 1927 (gage height, about 12 feet); minimum, 2 second-feet Sept. 1–9, 1928.

REMARKS.—Records fair except those estimated and those for low stages, which are poor. No diversions above gage.

## Daily and monthly discharge, in second-feet, 1929–30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6	8	7		8	11			48			
2	6	8	7	* 8	8	16			44			9
3	6	8	6			16			40	* 7	6	
4	6	7	6			16	* 45		37			
5	6	8	6	9		18		* 45	37			
6	6	8	7		* 12	16			* 38	6		
7	6	8	6			15	40		* 39			
8	7	8	8			20			40			
9	7	8	9	* 8	22	18			38	* 6		8
10	7	8	16		18	18	* 38		35		6	
11	7	7	16		19	21		70	34			
12	7	6	12	8	24	29			33	6		
13	7	5	13		22	34	35		30			
14	7	5	10		32	34			28			
15	7	5	9		38	32			26			
16	7	5	9		25	33	* 35			* 6		
17	7	5	9		24	31						
18	6	5	9		24	26		* 80				
19	6	4	16		21	28			* 20	6		
20	6	4	16		21	31	35					
21	6	4	11	* 8	20	31						
22	6	4	10		20	36			15	* 6		
23	6	5			22							
24	6	5			17		* 35					
25	7	5			18			73	* 12			
26	7	5	* 8			38				6		
27	8	5			16							
28	8	6			15		35	* 65				
29	7	6			13		* 35		9	* 6		
30	8	6				40		58	8			
31	7		6			40		55				

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	8	6	6.6	406
November	8	4	6.0	357
December	16	6	9.2	566
January			8.0	492
February	38	8	18.5	1,030
March		11	28.3	1,740
April			37.7	2,240
May			64.7	3,980
June	48		25.7	1,530
July			6.2	381
August			* 6	369
September			* 7	417
The year		4	18.7	13,500

\*Estimated.

## COTTONWOOD CREEK NEAR PARADISE VALLEY, NEV.

LOCATION.—Staff gage in SW.  $\frac{1}{4}$  sec. 3, T. 42 N., R. 39 E., at Case ranch, 5 miles northwest of Paradise Valley.

RECORDS AVAILABLE.—May, 1925, to September, 1930.

EXTREMES.—Maximum discharge during year, 18 second-feet May 27, 29, Aug. 6, 7; no flow for several periods.

1925-1930: Maximum discharge, 120 second-feet Mar. 25, 1928; no flow for periods during practically every year.

REMARKS.—Records fair. Two small diversions above station.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		2	1	2	2	4	7	7	15	3		
2		2	1	2	2	3	8	7	13	3		
3		2	1	2	2	3	8	9	13	2	0	
4		2	1	2	2	3	8	10	13	2		
5	0	2	1	2	2	4	10	9	11	2		
6		2	1	2	2	6	10	11	11	2		
7		2	1	2	4	5	10	11	10	2	10	
8		2	1	2	4	4	10	11	10	2	10	
9	1	2	4	2	4	4	10	11	10	2	1	
10	1	2	7	2	6	4	10	11	13	2		
11	1	2	2	2	7	4	10	12	13	2		0
12	1	2	2	2	6	4	10	13	11	2		
13	1	2	2	2	6	4	9	13	11	1		
14	1	2	2	2	8	5	8	12	10	1		
15	1	2	2	2	6	5	8	12	10	1		
16	2	2	2	2	6	5	7	13	10	1		
17	2	2	3	2	5	4	7	13	10	1		
18	2	1	4	2	4	4	7	13	8	1		
19	2	1	8	2	3	5	7	14	10	1		
20	2	1	4	2	4	5	8	14	7	1	0	
21	2	1	3	2	4	5	8	15	7	1		10
22	2	2	2	2	3	5	9	15	7	0		2
23	2	2	2	2	8	5	10	15	7	0		
24	2	2	2	2	5	6	9	15	6	1		
25	2	2	2	2	4	6	9	15	5	1		0
26	2	1	2	2	4	7	10	15	5	0		
27	2	1	2	2	4	7	0	18	5	0		
28	2	1	2	2	4	7	9	17	5	0		0
29	2	1	2	2		7	8	18	4	0		0
30	2	1	2	2		8	8	17	3	0		0
31	2		2	2		7		15		0		

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	2	0	1.3	80
November	2	1	1.7	101
December	6	1	2.4	148
January	2	2	2.0	123
February	6	2	4.3	239
March	8	3	5.0	307
April	10	7	8.7	518
May	18	7	12.9	793
June	15	3	9.1	542
July	3	0	1.2	74
August	10	0	.7	43
September	10	0	.4	24
The year	18	0	4.1	2,990

**HUMBOLDT-LOVELOCK IRRIGATION, LIGHT & POWER CO.'S FEEDER CANAL NEAR  
MILL CITY, NEV.**

**LOCATION.**—Water-stage recorder in SW.  $\frac{1}{4}$  sec. 29, T. 33 N., R. 35 E., one-fourth mile below head of canal and 2 miles north of Mill City.

**RECORDS AVAILABLE.**—February, 1914, to September, 1930.

**REMARKS.**—Records fair. Flow regulated by head gates. Canal diverts from Humboldt River in NW.  $\frac{1}{4}$  sec. 29, T. 33 N., R. 35 E., for storage in Taylor-Pitt Reservoirs near Humboldt. Water is returned to river during irrigation season about 3 miles west of Humboldt through Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal and carried in natural channel to head gates of canals serving Lovelock district.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
1	0						16						0
2	0						17						0
3	0						18						0
4	0					a 12	19						0
5	0						20			9			0
6	0						21						0
7	0		11				22	a 5				11	0
8	0					14	23				a 7		0
9	0						24						0
10	0					a 14	25						0
11	0						26						0
12	0					14	27						0
13	0					14	28	7				9	0
14	0					11	29						0
15	2	8			17	0	30	a 7					0
							31			7			0

Month	Mean	Run-off in acre-feet	Month	Mean	Run-off in acre-feet
October	2.9	178	February	a 10	555
November	a 8	476	March	5.8	357
December	a 9	553			
January	a 7	430	The year		2,550

a Estimated.

NOTE.—No flow in months omitted.

**HUMBOLDT-LOVELOCK IRRIGATION, LIGHT & POWER CO.'S OUTLET CANAL NEAR  
HUMBOLDT, NEV.**

**LOCATION.**—Staff gage and weir in SE.  $\frac{1}{4}$  sec. 30, T. 32 N., R. 33 E., at outlet of lower Taylor-Pitt Reservoir,  $2\frac{1}{2}$  miles west of Humboldt.

**RECORDS AVAILABLE.**—February, 1914, to September, 1920; October, 1921, to September, 1930.

**REMARKS.**—Records good. Flow regulated by reservoir outlet gates a few hundred feet upstream. Canal conducts stored water released from Taylor-Pitt Reservoirs to Humboldt River in SW.  $\frac{1}{2}$  sec. 31, T. 32 N., R. 33 E., for irrigation in Lovelock Valley, several miles downstream. Gage-height record furnished by Humboldt-Lovelock Irrigation, Light & Power Co.

*Daily discharge, in second-feet, 1929-30*

Date	Discharge	Date	Discharge
May 4	13	May 7	45
May 5	85	May 8	19
May 6	45		

NOTE.—Total discharge, May 4-8, 412 acre-feet. Canal dry Oct. 1 to May 3 and May 9 to Sept. 30.

## PYRAMID AND WINNEMUCCA LAKES BASIN

## LAKE TAHOE AT TAHOE, CALIF.

LOCATION.—Staff gage in SE.  $\frac{1}{4}$  sec. 6, T. 15 N., R. 17 E., near outlet of lake at Tahoe. Zero of gage is 6,220 feet above mean sea level. Mean low-water elevation of lake is 6,226.0 feet.

DRAINAGE AREA.—519 square miles (including water surface of lake, which is 193 square miles).

RECORDS AVAILABLE.—1900 to September, 1930.

EXTREMES.—Maximum stage during year, 4.70 feet June 24; minimum, 2.60 feet Dec. 8.

1900-1930: Maximum stage, 11.26 feet July 14, 15, 17, 18, 1907; minimum, that of Dec. 8, 1929.

REMARKS.—See table of daily discharge for Truckee River at Tahoe, Calif., page 81, for record of water pumped from lake Oct. 1 to Dec. 11, Aug. 21 to Sept. 27, Sept. 29-30. Gage-height record furnished by United States Bureau of Reclamation.

*Daily gage height, in feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.41	3.02	2.65	3.03	3.20	3.50	3.69	4.12	4.48	4.64	4.37	3.97
2	3.38	3.00	2.64	3.03	3.21	3.49	3.69	4.13	4.49	4.64	4.36	3.96
3	3.35	2.98	2.64	3.02	3.21	3.50	3.69	4.14	4.50	4.63	4.34	3.95
4	3.33	2.96	2.63	3.01	3.21	3.54	3.70	4.15	4.50	4.63	4.32	3.94
5	3.32	2.96	2.63	3.09	3.21	3.60	3.71	4.16	4.51	4.63	4.30	3.93
6	3.32	2.95	2.62	3.11	3.21	3.64	3.71	4.18	4.51	4.63	4.28	3.92
7	3.36	2.94	2.61	3.14	3.22	3.65	3.72	4.21	4.52	4.63	4.27	3.89
8	3.35	2.93	2.60	3.14	3.22	3.65	3.73	4.22	4.54	4.63	4.27	3.85
9	3.32	2.92	2.75	3.13	3.22	3.65	3.75	4.22	4.56	4.62	4.26	3.81
10	3.31	2.91	3.00	3.14	3.22	3.64	3.76	4.24	4.58	4.61	4.25	3.77
11	3.30	2.90	3.02	3.14	3.22	3.64	3.76	4.24	4.60	4.60	4.25	3.76
12	3.29	2.86	3.08	3.15	3.22	3.65	3.77	4.24	4.61	4.59	4.24	3.74
13	3.28	2.82	3.10	3.15	3.22	3.65	3.79	4.24	4.63	4.58	4.23	3.73
14	3.27	2.79	3.10	3.17	3.22	3.66	3.90	4.24	4.65	4.57	4.22	3.71
15	3.25	2.78	3.09	3.17	3.22	3.67	3.93	4.24	4.66	4.57	4.21	3.70
16	3.25	2.77	3.15	3.19	3.22	3.67	3.95	4.25	4.67	4.56	4.19	3.69
17	3.24	2.77	3.15	3.20	3.22	3.66	3.96	4.27	4.68	4.55	4.17	3.68
18	3.23	2.76	3.14	3.23	3.22	3.66	3.97	4.29	4.69	4.53	4.16	3.66
19	3.22	2.76	3.14	3.23	3.22	3.65	3.97	4.31	4.69	4.52	4.14	3.66
20	3.21	2.75	3.14	3.24	3.28	3.65	3.98	4.34	4.68	4.50	4.13	3.65
21	3.20	2.74	3.13	3.23	3.30	3.66	3.99	4.33	4.68	4.48	4.12	3.64
22	3.19	2.72	3.12	3.22	3.35	3.66	4.01	4.34	4.69	4.47	4.11	3.61
23	3.19	2.70	3.12	3.22	3.41	3.67	4.03	4.36	4.69	4.47	4.09	3.59
24	3.17	2.69	3.11	3.22	3.42	3.67	4.05	4.37	4.70	4.46	4.06	3.55
25	3.15	2.67	3.10	3.23	3.43	3.66	4.06	4.38	4.69	4.46	4.03	3.52
26	3.14	2.67	3.09	3.23	3.49	3.66	4.09	4.40	4.68	4.45	4.04	3.51
27	3.14	2.66	3.08	3.23	3.49	3.66	4.09	4.42	4.67	4.43	4.04	3.50
28	3.13	2.66	3.06	3.22	3.50	3.67	4.10	4.43	4.66	4.41	4.03	3.49
29	3.11	2.65	3.05	3.22	-----	3.67	4.10	4.43	4.65	4.40	4.02	3.51
30	3.10	2.65	3.05	3.21	-----	3.67	4.11	4.44	4.64	4.39	4.00	3.52
31	3.07	-----	3.04	3.21	-----	3.68	-----	4.46	-----	4.38	3.99	-----

## TRUCKEE RIVER AT TAHOE, CALIF.

LOCATION.—Staff gage in NW.  $\frac{1}{4}$  sec. 7, T. 15 N., R. 17 E., at Tahoe, just below dam at outlet of Lake Tahoe.

DRAINAGE AREA.—519 square miles.

RECORDS AVAILABLE.—July, 1895, to February, 1896; June, 1900, to September, 1930.

EXTREMES.—1895-96, 1900-1930: Maximum mean daily discharge, 1,340 second-feet July 13-20, 1907 (gage height, 4.3 feet); no flow during parts of 1900, 1901, 1914, 1918-1930.

REMARKS.—Flow regulated by operation of gates in dam at Lake Tahoe. Flow from Oct. 1 to Dec. 11, Aug. 21 to Sept. 30 pumped from Lake Tahoe. Daily discharge record furnished by United States Bureau of Reclamation.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	June	July	Aug.	Sept.
1	85	79	82	0	4	18	0	151	140	267
2	54	70	84	0	4	18	0	151	138	280
3	52	85	81	0	4	18	0	• 189	132	285
4	52	85	72	0	4	20	0	• 216	126	293
5	54	85	79	0	4	24	0	• 216	124	306
6	58	78	81	1	4	27	0	• 216	123	304
7	70	67	82	2	5	28	0	• 216	121	293
8	81	68	79	2	5	28	0	• 216	119	260
9	82	78	61	2	5	28	0	• 213	117	265
10	76	76	63	2	5	27	0	210	115	270
11	76	69	25	2	5	27	0	208	117	272
12	85	67	0	3	5	28	0	203	113	290
13	79	71	0	3	3	28	0	200	109	285
14	76	79	0	3	0	29	0	198	108	295
15	73	79	0	3	0	30	0	198	106	295
16	81	79	0	4	0	30	0	196	102	282
17	71	81	0	4	0	13	0	191	97	285
18	66	81	0	5	3	0	0	184	95	270
19	65	79	0	5	2	0	0	180	90	250
20	72	79	0	6	0	0	0	175	87	274
21	76	61	1	5	0	0	0	173	102	282
22	76	73	2	5	0	0	0	171	157	285
23	78	69	2	5	0	0	23	168	212	290
24	81	74	1	5	0	0	128	164	240	290
25	82	73	1	5	0	0	175	164	262	288
26	84	77	0	5	0	0	175	160	267	290
27	85	85	0	5	0	0	175	155	267	248
28	67	84	0	5	8	0	179	149	280	0
29	66	82	0	5	-----	0	200	147	285	27
30	67	82	0	4	-----	0	186	145	288	168
31	68	-----	0	4	-----	0	-----	143	282	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	85	52	72.2	4,440
November	85	61	70.5	4,550
December	64	0	27.7	1,580
January	6	0	3.23	199
February	8	0	2.50	139
March	30	0	13.6	836
June	200	0	41.4	2,460
July	216	143	183	11,300
August	288	87	150	9,780
September	306	0	260	15,500
The year	306	0	70.0	50,800

• Estimated.

NOTE.—No flow in months omitted.

## TRUCKEE RIVER AT ICELAND, CALIF.

LOCATION.—Water-stage recorder in sec. 36, T. 18 N., R. 17 E., above dam of National Ice Co. at Iceland.

DRAINAGE AREA.—937 square miles.

RECORDS AVAILABLE.—August, 1912, to September, 1930. September, 1899, to August, 1912, at Nevada-California State line, 3 miles downstream.

EXTREMES.—1899-1930: Maximum mean daily discharge, 15,300 second-feet Mar. 18, 1907; minimum, 40 second-feet Jan. 19, 20, 1925.

REMARKS.—Flow regulated by operation of gates in dam at Lake Tahoe. Ice in river Jan. 5-15, discharge given may be too large. Daily discharge record furnished by United States Bureau of Reclamation.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....	189	134	138	158	174	269	1,070	979	751	471	207	315
2.....	147	140	138	153	193	269	1,140	1,050	681	459	200	320
3.....	132	142	134	158	205	265	1,220	1,150	701	465	196	334
4.....	134	145	132	174	212	256	1,190	1,030	779	482	260	329
5.....	134	145	128	286	241	265	1,240	1,000	908	453	282	344
6.....	134	145	124	146	234	256	1,320	987	1,020	425	282	355
7.....	136	140	128	146	253	273	1,420	908	1,100	391	282	334
8.....	145	134	130	136	278	265	1,560	816	1,100	375	278	315
9.....	147	138	295	164	282	265	1,490	751	1,020	365	189	305
10.....	140	145	1,020	177	209	278	1,340	715	971	355	200	315
11.....	140	136	736	230	286	320	1,210	708	995	339	260	320
12.....	140	134	888	230	286	365	1,220	744	1,020	365	252	329
13.....	140	152	1,200	209	413	370	1,460	861	979	315	269	334
14.....	140	160	750	199	408	344	1,320	915	900	305	251	339
15.....	134	187	556	202	351	325	1,290	900	854	296	227	334
16.....	136	207	723	230	366	320	1,180	908	854	287	207	329
17.....	140	219	463	270	371	305	1,160	1,120	779	273	193	329
18.....	134	170	435	266	397	325	1,180	1,100	681	265	182	325
19.....	130	147	435	241	457	441	1,260	1,180	647	256	171	296
20.....	130	157	356	237	491	494	1,370	1,370	575	256	161	325
21.....	136	157	291	230	413	581	1,560	1,320	500	251	161	320
22.....	140	152	257	223	446	681	1,660	1,190	459	247	185	334
23.....	136	187	237	209	435	846	1,730	1,090	419	251	296	329
24.....	138	157	212	212	381	963	1,710	1,280	413	247	375	339
25.....	140	155	205	209	342	1,100	1,530	1,400	506	235	408	334
26.....	140	134	189	202	318	1,200	1,460	1,320	488	231	419	339
27.....	140	136	177	193	332	1,190	1,280	1,280	471	223	408	339
28.....	140	142	164	180	318	1,300	1,180	1,180	459	219	425	193
29.....	130	142	156	183	-----	1,360	1,100	1,110	459	215	413	86
30.....	130	144	158	174	-----	1,140	1,030	979	459	211	402	122
31.....	134	-----	164	183	-----	1,090	-----	831	-----	203	334	-----

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	189	130	139	8,550
November.....	219	134	153	9,100
December.....	1,200	124	359	22,100
January.....	286	136	200	12,300
February.....	491	174	328	18,200
March.....	1,360	256	572	35,200
April.....	1,730	1,030	1,330	79,100
May.....	1,400	708	1,040	64,000
June.....	1,100	413	732	43,600
July.....	482	203	314	19,300
August.....	425	161	271	16,700
September.....	355	86	309	18,400
The year.....	1,730	86	478	347,000

## ABERT LAKE BASIN

CHEWAUCAN RIVER ABOVE CONN DITCH, NEAR PAISLEY, OREG.

LOCATION.—Water-stage recorder in SW.  $\frac{1}{4}$  sec. 27, T. 33 S., R. 18 E., 200 feet below power plant of R. R. Severin, 500 feet above diversion dam of Conn Ditch, one-fourth mile below mouth of Mill Creek, and  $2\frac{1}{2}$  miles above Paisley.

DRAINAGE AREA.—266 square miles.

RECORDS AVAILABLE.—April to September, 1912; May, 1924, to September, 1930.

Records at stations giving practically same yearly run-off are available January, 1905, to December, 1907; January, 1909, to September, 1921.

EXTREMES.—Maximum discharge during year, 385 second-feet Apr. 8 (gage height, 1.50 feet); minimum, 13 second-feet several times in July, August, September.

1912, 1924-1930: Maximum discharge, 1,450 second-feet May 17, 1927 (gage height, 3.69 feet); stream frozen dry Dec. 7, 1927.

REMARKS.—Records good except those for periods when discharge was estimated or interpolated, which are fair. About 160 acres irrigated above station. Records furnished by State engineer of Oregon.

## Daily and monthly discharge, in second-feet, 1929-30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1.....		26	43	42	• 38	75	177	• 230	117	38	16	19
2.....		26	52	40	• 46	90	192	• 220	115	38	17	
3.....		26	59	31	73	84	210	• 210	106	36	17	
4.....	• 28	24	40	33	85	90	188	• 200	102	36	19	• 19
5.....		• 24	40	26	121	96	206	188	96	34	19	
6.....		• 23	42		139	88	251	• 183	92	33	19	
7.....	31	• 22	34		159	84	270	177	90	34	19	
8.....		21	34		219	94	319		88	31	19	19
9.....		27	49		162	75	299		86	30	20	
10.....		36	95		132	80	265		80	31	24	
11.....	• 26	26	82		• 140	92	251	• 166	71	30	26	
12.....		30	78		• 148	96	237		70	29	25	• 20
13.....		23	96		• 156	100	275		64	28	22	
14.....		44	96	• 22	165	92	284	154	61	25	22	
15.....	22	33	186		165	90		154	58	25	25	
16.....	22	37	206		140	82		165	58	22	24	21
17.....	23	37	106		146	64	• 280	184	52	21	21	20
18.....	23	46	139		140	• 90		169	49	21	22	20
19.....	24	44	280		148	115		165	49	21	21	20
20.....	26	66	151		154	129		165	52	21	21	20
21.....	26	80	110		126	111	275	177	52	21	21	20
22.....		96	83		140	111		162	51	21	20	21
23.....		100	83	26	117	108		146	52	21	19	• 24
24.....	• 26	66	66		82	111		137	48	21	19	26
25.....		60	73		113	122	• 268	134	43	20	19	30
26.....		42	49		80	132		134	40	19	• 18	29
27.....		37	55	• 29	90	173			38	19	17	28
28.....	• 26	38	74		61	181	260		36	19	17	28
29.....	• 24	37	74			206	• 250	• 126	38	17	17	31
30.....	22	38	52			228	• 240		38	16	16	30
31.....	26		60			177				16	17	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October.....		22	25.8	1,590
November.....	100	21	41.2	2,450
December.....	280	34	86.7	5,330
January.....	42		25.9	1,590
February.....	219	38	124	6,890
March.....	228	64	112	6,890
April.....	319	177	258	15,400
May.....			164	10,100
June.....	117	36	66.4	3,950
July.....	38	16	25.6	1,570
August.....	26	16	19.9	1,220
September.....	31		22.0	1,310
The year.....	319		80.4	58,300

• Estimated or interpolated.



## SILVER LAKE BASIN

## SILVER CREEK NEAR SILVER LAKE, OREG.

LOCATION.—Water-stage recorder in SW.  $\frac{1}{4}$  sec. 28, T. 28 S., R. 14 E.,  $\frac{1}{2}$  miles below diversion dam of Silver Lake Irrigation District,  $\frac{1}{2}$  miles southwest of Silver Lake post office, and 3 miles above mouth of Bridge Creek. At times record is obtained at staff gage in spillway flume at diversion dam in NE.  $\frac{1}{4}$  sec. 5, T. 29 S., R. 14 E.

DRAINAGE AREA.—221 square miles.

RECORDS AVAILABLE.—December, 1904, to March, 1907; January, 1909, to September, 1930 (incomplete).

EXTREMES.—Maximum discharge during year, 25 second-feet Apr. 9 (gage height, 0.93 foot); minimum, less than 1 second-foot several days in August and September.

1904-1907, 1909-1930: Maximum discharge, 910 second-feet Nov. 23, 1909 (river gage height, 6.40 feet); minimum, 0.3 second-foot several days in August and September, 1918, 1926.

REMARKS.—Records fair. Silver Lake Irrigation District Canal diverts water above gages during irrigation season. Diversion dam  $\frac{1}{2}$  miles above gage impounds about 800 acre-feet; also storage in Thompson Valley Reservoir. Records furnished by State engineer of Oregon.

## Daily and monthly discharge, in second-feet, 1929-30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.
1	1.7	2.5	2.1	1.7	2.6	9.7	9.4		20	3.2		1.1
2	1.7	2.6	2.6	2.1	4.1	9.2	11		18	2.8		1.1
3	1.7	2.6	2.5	1.8	3.2	5.2	12	a 14	16	2.4		1.0
4	1.7	2.7	2.6	1.7	2.9	5.2	16		a 18	2.3		1.0
5	1.7	2.6	2.5	2.1	3.2	4.5	20		23	2.2	a 1.0	1.0
6	1.7	2.7	2.2	2.0	2.8	3.8	21	18	19	2.0		1.1
7	1.8	2.9	2.1	2.1	2.9	3.6	23	19	15	1.9		1.0
8	1.8	3.2	a 2.0	1.7	2.9	3.8	24	19	14	1.8		1.0
9	1.8	3.1	a 1.9		3.6	3.6	25	20	13	1.6	1.3	1.1
10	1.8	3.2	a 1.7		3.2	3.6	24	15	11	1.5	1.3	1.3
11	1.8	3.5	a 1.6		3.2	3.5	21	14	11	1.5	1.3	1.3
12	a 1.8	3.6	1.5		3.4	3.5	21	14	11	1.4	1.3	1.2
13	a 1.8	3.4	1.5		3.4	3.5	21	13		1.4	1.3	1.2
14	a 1.8	3.1	1.5		3.4	3.5	19	13		1.5	1.3	1.2
15	1.8	3.1	1.5		3.5	3.6	19	13	a 11	1.4	1.3	1.2
16	1.8	3.1	1.5	a 1.7	3.4	3.8	20	13		1.4	1.3	1.2
17	1.8	2.8	1.6		3.2	4.9	21	13		1.4	1.4	1.2
18	1.8	a 2.6	1.8		3.2	4.2	20	13		1.4	1.4	1.2
19	1.8	a 2.3	1.7		3.1	2.9	19	13	11	1.4	1.4	1.2
20	1.9	a 2.0	1.8		3.4	2.7	18	11	11	1.4	1.4	1.2
21	2.0	1.8	1.8		4.4	2.5	18	11	a 11	1.5	1.4	1.2
22	2.0	2.1	2.0		5.0	2.5	17	12	a 11	1.4	1.4	1.3
23	1.9	1.8	1.7		4.7	2.4	16	13	11	1.4	1.4	1.3
24	2.0	1.7	1.7	1.8	4.9	2.4	15	14	10	1.3	1.4	1.3
25	2.1	1.7	1.6	1.8	7.2	2.4	14	21	9.6	1.3	1.3	1.3
26	2.1	1.7	2.0	1.7	5.0	2.4	13	21	8.8	1.2	1.1	1.3
27	2.2	1.8	2.4	1.7	4.9	2.3	11	21	9.0	1.2	1.0	1.3
28	2.3	1.8	1.9	1.8	5.9	2.4	10	21	8.8	1.3	1.0	1.3
29	2.4	1.9	2.1	2.0		2.4	11	22	7.8	1.1	1.0	1.3
30	2.5	1.8	1.6	2.3		2.6	10	22	4.7	1.1	1.0	1.3
31	2.5		2.1	2.2		2.8		21		1.0	1.1	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	2.5	1.7	1.92	118
November	3.6	1.7	2.52	150
December	2.6	1.5	1.91	117
January	2.3		1.81	111
February	7.2	2.6	3.81	212
March	9.7	2.3	3.72	229
April	25	9.4	17.3	1,080
May	22		15.8	972
June	23	4.7	12.3	732
July	3.2	1.0	1.60	98
August	1.4		1.20	74
September	1.3	1.0	1.19	71
The year	25		5.41	3,910

• Estimated or interpolated.

## SILVER LAKE IRRIGATION DISTRICT CANAL NEAR SILVER LAKE, OREG.

LOCATION.—Staff gage in NE.  $\frac{1}{4}$  sec. 5, T. 29 S., R. 14 E., at diversion dam of Silver Lake Irrigation District,  $2\frac{1}{2}$  miles southwest of Silver Lake post office.

RECORDS AVAILABLE.—Irrigation seasons, 1923 to 1928, 1930.

EXTREMES.—Maximum discharge during year, 28 second-feet May 25-28; no flow except in May.

1923-1928, 1930; Maximum discharge, 60 second-feet June 26-29, 1923; no flow during most of each year.

REMARKS.—Records fair. Canal diverts from Silver Creek water released from storage in Thompson Valley Reservoir. Records furnished by State engineer of Oregon.

*Daily and monthly discharge, in second-feet, 1929-30*

Day	May	Day	May	Day	May
1.....	9	11.....	9	21.....	27
2.....	11	12.....	9	22.....	27
3.....	10	13.....	14	23.....	27
4.....	10	14.....	16	24.....	27
5.....	10	15.....	19	25.....	28
6.....	10	16.....	19	26.....	28
7.....	10	17.....	19	27.....	28
8.....	10	18.....	21	28.....	28
9.....	10	19.....	27	29.....	27
10.....	10	20.....	27	30.....	27
				31.....	20

Month	Maximum	Minimum	Mean	Run-off in acre-feet
May.....	28	9	18.56	1,140
The year.....	28	0	1.57	1,140

NOTE.—No flow except in May.

## MALHEUR AND HARNEY LAKES BASIN

## SILVIES RIVER NEAR BURNS, OREG.

LOCATION.—Water-stage recorder in or near SE.  $\frac{1}{4}$  sec. 25, T. 21 S., R. 29 E., 1 mile below dam site for proposed lower Silvies Reservoir and 15 miles northwest of Burns. Staff gage in sec. 7, T. 22 S., R. 10 E., at Parker ranch, sometimes used during winter.

DRAINAGE AREA.—940 square miles.

RECORDS AVAILABLE.—May, 1903, to July, 1906; December, 1908, to September, 1930.

EXTREMES.—Maximum discharge during year, 354 second-feet Feb. 14 (gage height, 5.34 feet); minimum, 0.3 second-foot Sept. 3.

1903-1906, 1908-1930: Maximum discharge, 4,730 second-feet Apr. 15, 1904 (gage height, 17.12 feet, original datum); minimum, that of Sept. 3, 1930.

REMARKS.—Records fair except those estimated, Jan. 7 to Feb. 5, and those for Apr. 12 to Sept. 30, which are poor. Large area on headwaters of Silvies River irrigated with flood water. Records furnished by State engineer of Oregon.

## Daily and monthly discharge, in second-feet, 1929-30

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	18	23	32	40	62	81	31	15.0	5.2	1.4	0.9
2	15	19	24	32		67	76	32	15.0	4.8	2.1	.5
3	15	19	25	31		63	71	29	14.0	4.6	2.1	1.4
4	15	19	25	31		64	67	29	14.0	4.4	2.0	1.5
5	14	19	26	30		61	57	30	15.0	4.0	2.0	1.2
6	13	20	28	31	47	70	58	28	14.0	3.6	2.0	1.0
7	13	20	29		53	67	54	27	13.0	3.6	2.1	1.5
8	13	20	28		59	61	53	26	12.0	3.6	2.5	2.2
9	13	21	31		65	59	51	27	9.9	3.6	3.2	2.3
10	13	21	35		73	59	39	27	9.9	3.8	3.4	2.6
11	13	22	43		82	65	36	27	9.0	3.4	3.4	3.0
12	14	22	45		92	71	36	25	8.6	2.8	3.2	3.4
13	14	19	47		132	73	34	25	8.4	2.7	2.9	3.6
14	15	19	51		304	76	36	25	7.6	6.6	2.8	3.8
15	15	19	51		244	74	39	28	7.4	6.2	2.7	3.6
16	15	19	56		140	73	38	34	7.4	4.2	2.5	3.4
17	15	19	64		132	65	36	35	7.6	2.8	2.5	3.6
18	16	20	46		120	62	36	36	7.0	2.7	2.6	3.8
19	16	19	46	30	128	64	36	36	6.8	5.0	2.7	3.8
20	16	19	47		124	70	37	36	7.0	3.6	2.8	4.2
21	18	19	49		124	78	37	33	7.4	2.9	2.8	4.0
22	16	18	42		128	88	34	30	6.8	4.2	2.7	3.8
23	16	18	40		113	88	34	28	6.8	3.4	2.5	4.0
24	16	19	42		92	88	32	25	6.8	3.6	2.4	5.0
25	16	19	40		88	92	34	23	6.6	3.6	2.5	5.0
26	16	21	36		84	102	34	20	6.4	2.7	2.4	5.0
27	16	23	34		73	106	35	19	5.8	2.2	2.5	5.0
28	16	23	30		69	106	32	17	5.8	2.0	2.5	6.0
29	16	23	32			96	30	16	5.4	1.9	2.7	6.8
30	18	22	32			92	30	16	5.2	1.8	2.2	7.4
31	18		32			92		16		1.6	1.4	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
October	18	13	15.2	935
November	23	18	19.9	1,180
December	64	23	38.0	2,340
January			30.2	1,860
February	304		98.8	5,490
March	106	50	75.9	4,670
April	81	30	43.4	2,580
May	36	16	27.0	1,660
June	15	5.2	9.05	539
July	5.2	1.6	3.58	220
August	3.4	1.4	2.50	154
September	7.4	0.5	3.44	205
The year	304	0.5	30.2	21,800

## ALVORD LAKE BASIN

## TROUT CREEK NEAR DENIO, OREG.

**LOCATION.**—Water-stage recorder in SW.  $\frac{1}{4}$  sec. 26, T. 39 S., R. 36 E., 800 feet above bridge at mouth of canyon, 5 miles east of Trout Creek ranch, and 14 miles northeast of Denio.

**RECORDS AVAILABLE.**—March, 1911, to March, 1912; April, 1922, to November, 1923; April, 1925, to September, 1930 (incomplete).

**EXTREMES.**—Maximum discharge during period, 42 second-feet Apr. 24 (gage height, 1.99 feet); practically no flow Aug. 4.

1911-12, 1922-23, 1925-1930: Maximum discharge, 235 second-feet May 18, 1927 (gage height, 3.55 feet); practically no flow July 22, 1929, Aug. 4, 1930.

**REMARKS.**—Records fair except those estimated, Apr. 1, July 15 to Aug. 11. Some water diverted for irrigating small ranch fields above station; large area irrigated below mouth of canyon. Records furnished by State engineer of Oregon.

*Daily and monthly discharge, in second-feet, 1930*

Day	Apr.	May	June	July	Aug.	Sept.	Day	Apr.	May	June	July	Aug.	Sept.
1-----	11	25	13	2.0	.4	1	16-----	14	27	5	.3	1.0	1
2-----	11	20	12	2.0		1	17-----	12	29	4		1.0	1
3-----	11	33	12	2.0		1	18-----	12	28	4		1.0	2
4-----	9	31	12	2.0		1	19-----	12	28	4		1.0	2
5-----	4	28	11	2.0		1	20-----	12	26	5		1.0	2
6-----	7	29	11	1.0	.3	1	21-----	16	26	5	.3	1.0	1
7-----	10	29	10	1.0		1	22-----	20	22	4		1.0	1
8-----	12	32	10	1.0		1	23-----	23	20	4		1.0	2
9-----	16	30	10	1.0		1	24-----	36	20	4		1.0	2
10-----	15	31	9	1.0		1	25-----	29	18	4		1.0	2
11-----	15	26	8	1.0	1.0	1	26-----	27	18	4	1.0	1.0	2
12-----	12	25	8	1.0		1	27-----	26	17	4		1.0	
13-----	14	29	5	1.0		1	28-----	23	16	3		1.0	
14-----	13	31	5	1.0		1	29-----	26	15	3		1.0	
15-----	15	27	5	1.0		1	30-----	24	18	3		1.0	
							31-----		16			1.0	

Month	Maximum	Minimum	Mean	Run-off in acre-feet
April-----	36	4	16.4	976
May-----	33	15	25.1	1,540
June-----	13	3	6.7	399
July-----	2	-----	0.8	49
August-----	1	-----	0.8	49
September-----	2	1	1.4	83
The period-----	-----	-----	-----	3,100

NOTE.—No record for months omitted.

## MISCELLANEOUS DISCHARGE MEASUREMENTS

Discharge measurements of streams in the Great Basin at points other than regular gaging stations, made during the year ending September 30, 1930, are listed in the following table:

*Miscellaneous discharge measurements in the Great Basin during the year ending Sept. 30, 1930*

## Bear River Basin

Date	Stream	Tributary to or diverting from—	Locality	Gage-height	Dis-charge
Apr. 23	Left Fork-----	Blacksmith Fork-----	SE. ¼ sec. 3, T. 10 N., R. 2 E., at highway bridge 500 feet above confluence with Blacksmith Fork and 7½ miles east of Hyrum, Utah.	Feet-----	Sec.-ft. 40.6

## Jordan River Basin

Nov. 7	Jordan River-----	Great Salt Lake-----	SW. ¼ sec. 26, T. 1 S., R. 1 W., at 33d South Street bridge at Salt Lake City, Utah.	-----	271
7	do-----	do-----	NW. ¼ sec. 2, T. 1 S., R. 1 W., at Utah Power & Light Co.'s gaging station at 2d South Street bridge at Salt Lake City, Utah.	3.70	255
7	do-----	do-----	On line between NE. ¼ and SE. ¼ sec. 27, T. 1 N., R. 1 W., at 9th North Street bridge at Salt Lake City, Utah.	-----	261
Mar. 18	Bladley Creek-----	Salt Creek-----	SW. ¼ sec. 5, T. 13 S., R. 2 E., 25 feet above confluence with Salt Creek and 5½ miles east of Nephi, Utah.	-----	3.0
18	Upper power plant canal-----	do-----	NW. ¼ sec. 5, T. 13 S., R. 2 E., 50 feet below head gates and 5½ miles east of Nephi, Utah.	-----	10.9
18	do-----	do-----	NW. ¼ sec. 6, T. 13 S., R. 2 E., at forebay 50 feet above penstock and 4½ miles east of Nephi, Utah.	-----	10.6
Nov. 7	Surplus Canal-----	Jordan River-----	NE. ¼ sec. 15, T. 1 S., R. 1 W., at Utah Power & Light Co.'s gaging station at intersection of Redwood Road and California Ave., Salt Lake City, Utah.	.94	98.0

## Beaver River Basin

Aug. 21	Beaver River-----	Sevier River-----	NE. ¼ sec. 17, T. 29 S., R. 5 W., one-fourth mile above diversion for upper power plant and 11 miles east of Beaver, Utah.	-----	17.8
20	Telluride Power Co.'s tailrace-----	Beaver River-----	SE. ¼ sec. 24, T. 29 S., R. 6 W., at upper power plant 9 miles east of Beaver, Utah.	-----	21.5

## Salton Sink Basin

Dec. 21	San Felipe Creek.....	Salton Sea.....	Near Julian, Calif.....	-----	2.5
---------	-----------------------	-----------------	-------------------------	-------	-----

## Antelope Valley Basin

Jan. 18	Punch Bowl Creek....	Rock Creek.....	Near Valyermo, Calif.....	-----	0.65
Mar. 25	do.....	do.....	do.....	-----	5.4
Apr. 5	do.....	do.....	do.....	-----	1.5
May 6	do.....	do.....	do.....	-----	2.3
June 4	do.....	do.....	do.....	-----	.7
14	do.....	do.....	do.....	-----	.4

## Walker Lake Basin

Nov. 6	Walker River.....	Walker Lake.....	In NE. ¼ sec. 20, T. 15 N., R. 26 E., at former gaging station at Parker ranch, near Wabuska, Nev.	0.35	11.1
Mar. 19	do.....	do.....	do.....	.44	13.2
June 3	do.....	do.....	do.....	.66	32.5
July 7	do.....	do.....	do.....	.76	35.8

# INDEX

	Page		Page
Abert Lake Basin, Oreg., gaging-station record in.....	83	Data, accuracy of.....	4-5
Accuracy of data and computed results.....	4-5	explanation of.....	2-4
Acre-foot, definition of.....	2	Deep Creek near Hesperia, Calif.....	61
Adamsville, Utah, Beaver River at.....	48	Denio, Oreg., Trout Creek near.....	87
Afton, Calif., Mohave River at.....	62	Devils Slide, Utah, Lost Creek at.....	32
Alexander, Idaho, Bear River at.....	14	Weber River at.....	28
Alvord Lake Basin, Oreg., gaging-station record in.....	87	East Walker River near Bridgeport, Calif.....	64
Antelope Valley Basin, Calif., discharge measurements in.....	80	Echo, Utah, Weber River at.....	27
gaging-station record in.....	60	Elko, Nev., South Fork of Humboldt River near.....	76
Appropriations, record of.....	1	Evanston, Wyo., Bear River near.....	12
Avon, Utah, East Fork of Little Bear River near.....	17	Falls Creek near Whitewater, Calif.....	51
Bear River at Alexander, Idaho.....	14	Forks, Utah, Provo River at.....	36
at Harer, Idaho.....	13	South Fork of Provo River at.....	37
near Collinston, Utah.....	16	Fort Churchill, Nev., Carson River near.....	71
near Evanston, Wyo.....	12	Gateway, Utah, Weber River at.....	29
near Weston, Idaho.....	15	Great Salt Lake, Utah, gages on.....	11
Bear River Basin, Utah, discharge measurement in.....	88	Gunnison, Utah, Sevier River near.....	42
Bear River Basin, Wyo.-Idaho-Utah, gaging-station records in.....	12-24	Hammond (East Side) Canal near Collinston, Utah.....	24
Beaver River at Adamsville, Utah.....	48	Harer, Idaho, Bear River at.....	13
at Rockyford Dam, near Minersville, Utah.....	49	Harney and Malheur Lakes Basin, Oreg., gaging-station record in.....	86
discharge measurement of.....	88	Hawthorne, Nev., Walker Lake near.....	67
near Beaver, Utah.....	47	Hesperia, Calif., Deep Creek near.....	61
Beaver River Basin, Utah, discharge measurements in.....	88	West Fork of Mohave River near.....	63
gaging-station records in.....	47-49	Humboldt, Nev., Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal near.....	79
Big Pine, Calif., Owens River near.....	55	Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal near Mill City, Nev.....	79
Bishop, Calif., Owens River near.....	54	Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal near Humboldt, Nev.....	79
Pine Creek near.....	58	Humboldt River at Palisade, Nev.....	74
Rock Creek near.....	56	near Oreana, Nev.....	75
Blacksmith Fork above Utah Power & Light Co.'s dam near Hyrum, Utah.....	22	South Fork of, near Elko, Nev.....	76
at Municipal Power Plant near Hyrum, Utah.....	21	Humboldt River Basin, Nev., gaging-station records in.....	74-79
Left Fork of, discharge measurement of.....	88	Hyrum, Utah, Blacksmith Fork near.....	21-22
Bladley Creek, Utah, discharge measurement of.....	88	Iceland, Calif., Truckee River at.....	82
Bridgeport, Calif., East Walker River near.....	64	Jordan River, Utah, discharge measurements in.....	88
Burns, Oreg., Silvies River near.....	86	near Lehi, Utah.....	34
Carson River, East Fork of, near Markleeville, Calif.....	70	Jordan River Basin, Utah, discharge measurements of.....	85
near Fort Churchill, Nev.....	71	gaging-station records in.....	34-37
Carson River Basin, Calif.-Nev., gaging-station records in.....	70-73	Juab, Utah, Sevier Bridge Reservoir near.....	43
Chalk Creek at Coalville, Utah.....	31	Sevier River near.....	44
Chewaucan River above Conn Ditch, near Paisley, Oreg.....	83	Kingston, Utah, East Fork of Sevier River near.....	45
Coalville, Utah, Chalk Creek at.....	31	Sevier River near.....	38
Weber River near.....	26	Lake Tahoe at Tahoe, Calif.....	80
Coleville, Calif., West Walker River near.....	68	Lehi, Utah, Jordan River near.....	34
Collinston, Utah, Bear River near.....	16	Little Bear River, East Fork of, near Avon, Utah.....	17
Hammond (East Side) Canal near.....	24	Logan, Hyde Park & Smithfield Canal near Logan, Utah.....	26
West Side Canal near.....	23	Logan River above State dam, near Logan, Utah.....	18
Computations, results of, accuracy of.....	4-5	Lost Creek at Devils Slide, Utah.....	32
Control, definition of.....	2	Malheur and Harney Lakes Basin, Oreg., gaging-station record in.....	86
Cooperation, record of.....	10		
Cottonwood Creek near Paradise Valley, Nev.....	78		

	Page		Page
Markleeville, Calif., East Fork of Carson River near	70	Sevier River below Piute Dam, near Marysville, Utah	40
Markleeville Creek above Markleeville, Calif. at Markleeville, Calif.	72	below San Pitch River, near Gunnison, Utah	42
Martin Creek near Paradise Valley, Nev.	73	East Fork of, near Kingston, Utah	45
Marysville, Utah, Piute Reservoir near	39	near Juab, Utah	44
Sevier River near	40	near Kingston, Utah	38
Mill City, Nev., Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal near	79	near Vermilion, Utah	41
Minersville, Utah, Beaver River near	49	Silver Creek near Silver Lake, Oreg.	84
Mohave River at Afton, Calif.	62	Silver Lake, Oreg., Silver Creek near	84
West Fork of, near Hesperia, Calif.	63	Silver Lake Irrigation District Canal near	85
Mohave River Basin, Calif., gaging-station records in	61-63	Silver Lake Basin, Oreg., gaging-station records in	84-85
Mono Lake near Mono Lake, Calif.	63	Silver Lake Irrigation District Canal near Silver Lake, Oreg.	85
Nephi, Utah, Salt Creek near	35	Silvies River near Burns, Oreg.	86
Oakley, Utah, Weber River near	25	Southern Pacific Co.'s ditch near Whitewater, Calif.	50
Ogden River, South Fork of, near Huntsville, Utah	33	Stage-discharge relation, definition of	2
Oreana, Nev., Humboldt River near	75	Surplus Canal, Utah, discharge measurement of	88
Owens Lake Basin, Calif., gaging-station records in	53-59	Tahoe, Calif., Lake Tahoe at	80
Owens River at Pleasant Valley, near Bishop, Calif.	54	Truckee River at	81
near Big Pine, Calif.	55	Telluride Power Co.'s tailrace, Utah, discharge measurement of	88
near Round Valley, Calif.	53	Terms, definition of	2
Paisley, Oreg., Chewaucan River near	83	Trout Creek near Denio, Oreg.	87
Palisade, Nev., Humboldt River at	74	Truckee River at Iceland, Calif.	82
Palm Canyon Creek near Palm Springs, Calif.	52	at Tahoe, Calif.	81
Paradise Valley, Nev., Cottonwood Creek near Martin Creek near	77	Upper power plant canal (Salt Creek Basin), Utah, discharge measurements of	88
Pine Creek at division box near Bishop, Calif. near Round Valley, Calif.	58	Utah Power & Light Co.'s tailrace near Logan, Utah	19
Piute Reservoir near Marysville, Utah	39	Valyermo, Calif., Rock Creek near	60
Plain City, Utah, Weber River near	30	Vermilion, Utah, Rockyford Canal near	46
Provo River at Forks, Utah	36	Sevier River near	41
South Fork of, at Forks, Utah	37	Wabaska, Nev., Walker River near	65
Publications, information concerning obtaining or consulting of	5-9	Walker Lake near Hawthorne, Nev.	67
on stream flow, lists of	8, 9	Walker Lake Basin, Nev., discharge measurements in	89
Punch Bowl Creek, Calif., discharge measurements of	89	Walker Lake Basin, Calif.-Nev., gaging-station records in	64-69
Pyramid and Winnemucca Lakes Basin, Calif., gaging-station records in	80-82	Walker River at Schurz, Nev.	66
Rock Creek at Sherwin Hill, near Bishop, Calif.	56	discharge measurements of	89
near Round Valley, Calif.	57	near Wabaska, Nev.	65
near Valyermo, Calif.	60	Weber River at Devils Slide, Utah	28
Rockyford Canal near Vermilion, Utah	46	at Echo, Utah	27
Round Valley, Calif., Owens River near	53	at Gateway, Utah	29
Pine Creek near	59	near Coalville, Utah	26
Rock Creek near	57	near Oakley, Utah	25
Run-off in inches, definition of	2	near Plain City, Utah	30
Salt Creek near Nephi, Utah	35	Weber River Basin, Utah gaging-station records in	25-33
Salton Sink Basin, Calif., discharge measurement in	89	Wellington, Nev., West Walker River near	69
gaging-station records in	50-52	West Side Canal near Collinston, Utah	23
San Felipe Creek, Calif., discharge measurement of	89	West Walker River at Howe Bridge, near Wellington, Nev.	69
Schurz, Nev., Walker River at	66	near Coleville, Calif.	68
Second-feet per square mile, definition of	2	Weston, Idaho, Bear River near	15
Second-foot, definition of	2	Whitewater, Calif., Falls Creek near	51
Sevier Bridge Reservoir near Juab, Utah	43	Southern Pacific Co.'s ditch near	50
Sevier Lake Basin, Utah, gaging-station records in	38-46	Winnemucca and Pyramid Lakes Basin, Calif., gaging-station records in	80-82
		Work, authorization of	1-2
		division of	10
		scope of	1-2